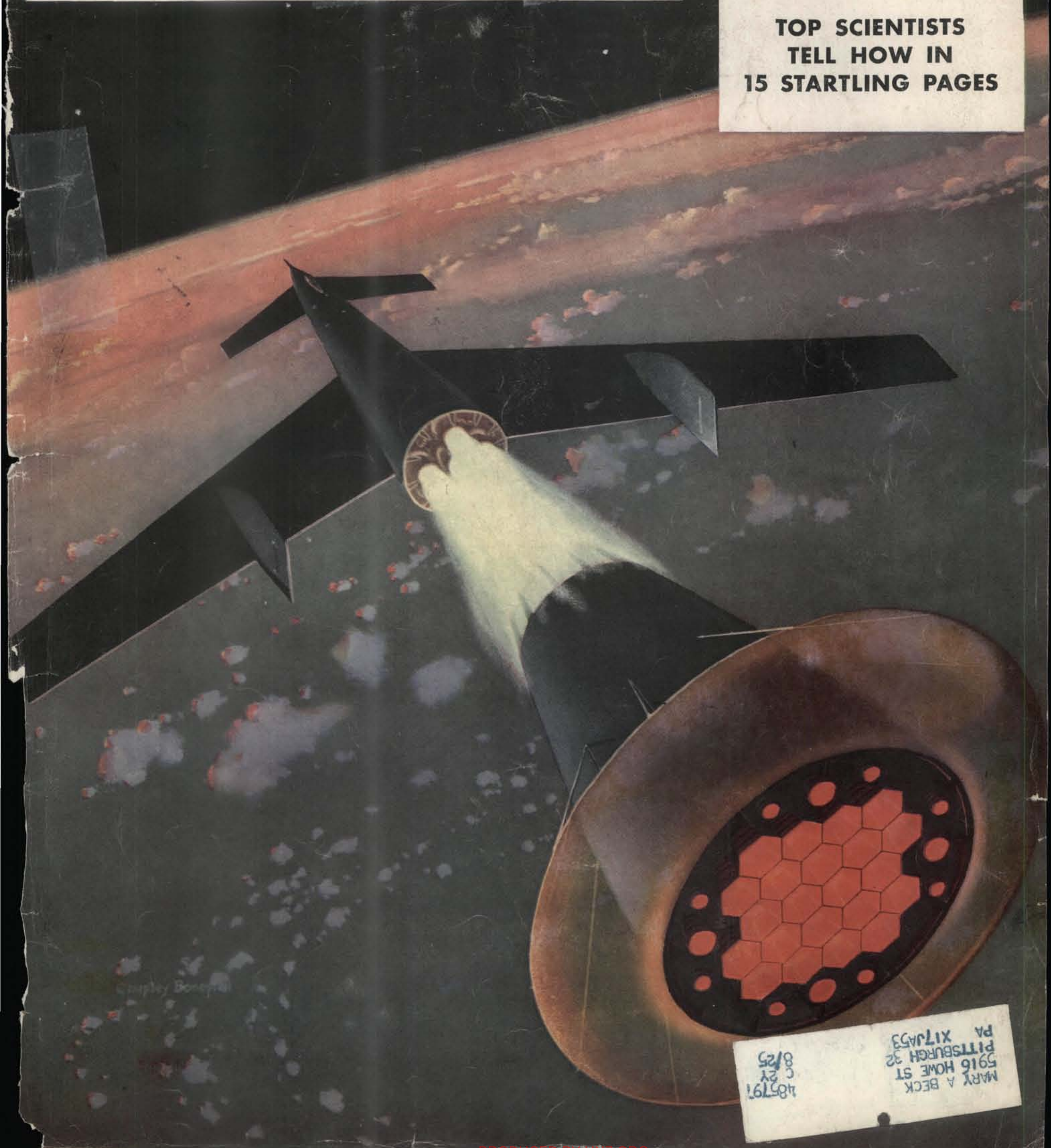
Collier's

March 22, 1952 • Fifteen Cents

DUQUESNE UNIVERSITY LIBRARY
PITTSBURGH 19,

Man Will Conquer Space Soon

TOP SCIENTISTS TELL HOW IN 15 STARTLING PAGES



MARY A BECK
5916 HOWE ST
PITTSBURGH 32
PA X17JA53
485791
C 2Y
8/25

OLD FORESTER
BOTTLED IN BOND
OLD FORESTER
KENTUCKY STRAIGHT BOURBON WHISKY
This whisky is distilled by us only, and we are responsible for its richness and fine quality. Its elegant flavor is solely due to original fineness developed with care. There is nothing better in the market.
DISTILLED AND BOTTLED BY
BROWN-FORMAN DISTILLERS CORPORATION
AT LOUISVILLE IN KENTUCKY
BROWN-FORMAN-KENTUCKY
SARRA

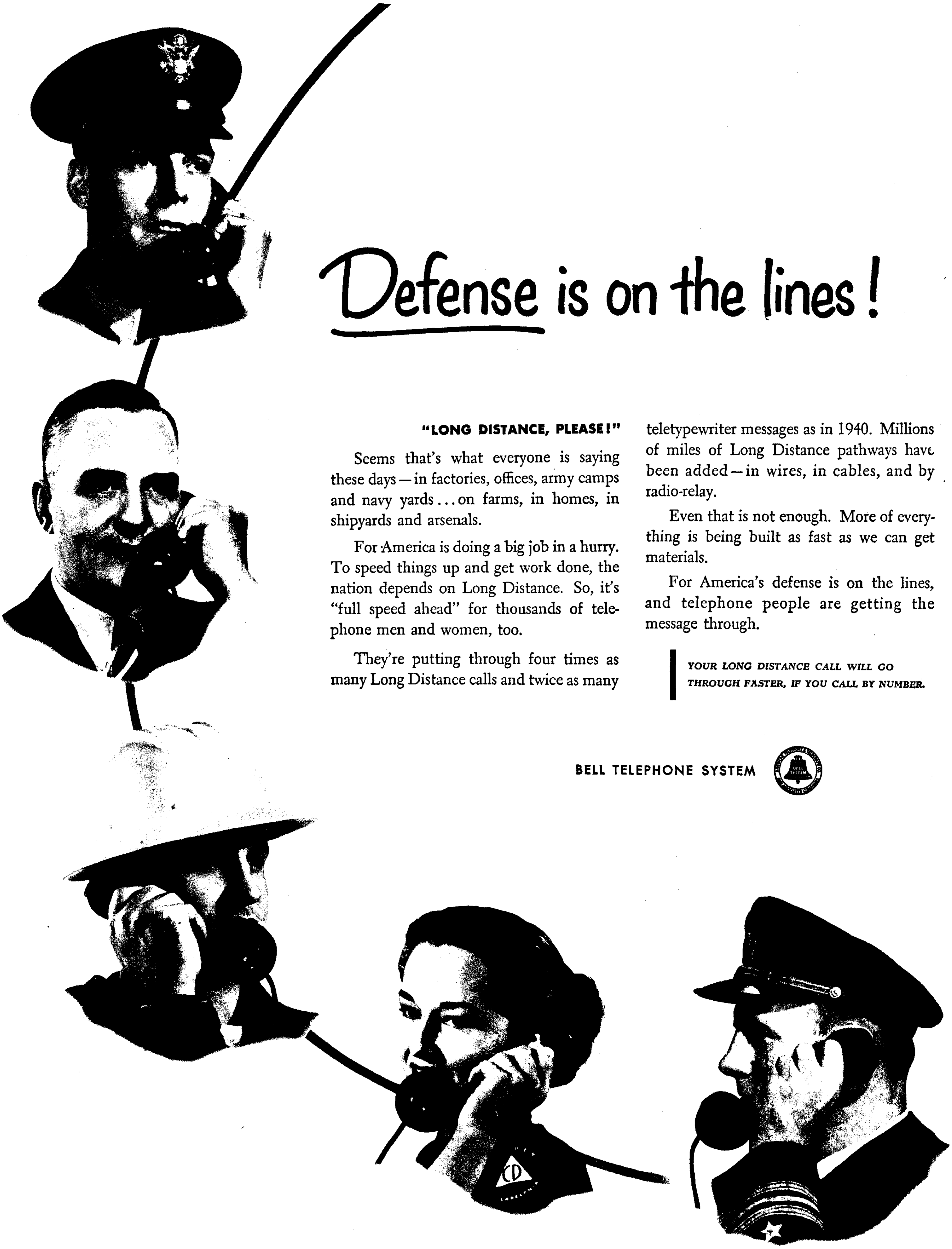
© 1952—B. F. DIST. CORP.

Photographed with special diffusion effects by Sarra, noted photographer and orchidologist

AS IT SAYS ON THE LABEL: *"There is nothing better in the market"*

KENTUCKY STRAIGHT BOURBON WHISKY • BOTTLED IN BOND • 100 PROOF

BROWN-FORMAN DISTILLERS CORPORATION • AT LOUISVILLE IN KENTUCKY



Defense is on the lines!

"LONG DISTANCE, PLEASE!"

Seems that's what everyone is saying these days — in factories, offices, army camps and navy yards . . . on farms, in homes, in shipyards and arsenals.

For America is doing a big job in a hurry. To speed things up and get work done, the nation depends on Long Distance. So, it's "full speed ahead" for thousands of telephone men and women, too.

They're putting through four times as many Long Distance calls and twice as many teletypewriter messages as in 1940. Millions of miles of Long Distance pathways have been added — in wires, in cables, and by radio-relay.

Even that is not enough. More of everything is being built as fast as we can get materials.

For America's defense is on the lines, and telephone people are getting the message through.

YOUR LONG DISTANCE CALL WILL GO THROUGH FASTER, IF YOU CALL BY NUMBER.

BELL TELEPHONE SYSTEM

FEEL *the difference in your* **SCALP**—

50 seconds' brisk massage with tingling Vitalis and you FEEL the stimulating difference in your scalp—prevent dryness, rout embarrassing flaky dandruff.

SEE *the difference in your* **HAIR!**

10 seconds to comb and you SEE the difference in your hair—far handsomer, healthier-looking. What's more, hair *stays in place longer*...stays easier to comb. (Vitalis Hair Tonic contains new grooming discovery.)

PROOF: VITALIS ALSO KILLS DANDRUFF GERMS

Laboratory tests prove Vitalis kills germs associated with infectious dandruff on contact, as no mere oil dressing can.

VITALIS
BRISTOL MYERS CO

use

VITALIS

HAIR TONIC

and the

"60-Second Workout"

A Product of Bristol-Myers

ALBERT E. WINGER
Chairman of the Board

CLARENCE E. STOUCH
President

Collier's

EDWARD ANTHONY, *Publisher*
LOUIS RUPPEL, *Editor*

RICHARD CHAPLIN, *Assistant Publisher*
GORDON MANNING, *Managing Editor*

DAVID MANESS, *Assistant Managing Editor*
ALLEN CLEATON, *Senior Associate Editor*
KNOX BURGER, *Fiction Editor*
JAMES THRASHER, *Editorials*
WILLIAM O. CHESSMAN, *Art Director*
GURNEY WILLIAMS, *Cartoon Editor*
JAMES A. QUIGNEY, *Photo Editor*
WALTER DAVENPORT, *Senior Correspondent*

Associate Editors · BERT BACHARACH · HOWARD BRODIE · WARREN BROWN
JEAN B. CAMPBELL · SEY CHASSLER · HOWARD COHN · LONNIE COLEMAN
BETSY CORRIGAN · WILLARD B. CROSBY · BILL DAVIDSON · JOHN DENSON
MACLENNAN FARRELL · EVELYN HARVEY · DIANA HIRSH · JERRY KORN · JOHN LEAR
FRANKLIN C. LORANGER · TOM MEANY · JOHN C. PELLEW · ELEANOR PORTER
CORNELIUS RYAN · JANET SHEPS · RED SMITH · FRANCIS WALLACE · JAMES N. YOUNG

Editorial Research · ROSANNE McVAY, *Chief*
MADELIN ALK, DIANE DOWNS, JANICE MOSES, MARTHA WEINMAN

Bureaus
WASHINGTON: JAMES C. DERIEUX, *Chief*; TODD WRIGHT
WEST COAST *(Los Angeles)*: THEODORE STRAUSS, *Chief*; ROBERT CAHN, JOHN FLOREA
MIDWEST *(Chicago)*: BILL FAY
SOUTH *(Atlanta)*: WILLIAM A. EMERSON, JR.
EUROPE *(Paris)*: SEYMOUR FREIDIN, BILL STAPLETON, WILLIAM RICHARDSON
FAR EAST *(Tokyo)*: CHARLOTTE KNIGHT

March 22, 1952

ARTICLES

Exposing the Psycho-Phonies .... JHAN ROBBINS 15
"Available Vinson" .... ROBERT BENDINER 18

MAN WILL CONQUER SPACE SOON

What Are We Waiting For? .... EDITORIAL 23
Crossing the Last Frontier .... DR. WERNHER von BRAUN 24
A Station in Space .... WILLY LEY 30
The Heavens Open .... DR. FRED L. WHIPPLE 32
This Side of Infinity .... DR. JOSEPH KAPLAN 34
Can We Survive in Space? .... DR. HEINZ HABER 35
Who Owns the Universe? .... OSCAR SCHACHTER 36
Space Quiz Around the Editor's Desk 38

For Women Only .... COLLIER'S COLOR CAMERA 68
Paddling His Own Konno .... BILL FAY 76

FICTION

The Curragh Race .... WALTER MACKEN 16
My Brother's Widow .... JOHN D. MacDONALD 20
(PART TWO OF FIVE PARTS)
Green Willow Growing .... PEGGY SIMSON CURRY 44
Affair of the Heart .... JOHN WYNDHAM 62
(THE SHORT SHORT STORY)

●

Week's Mail 6
48 States of Mind .... WALTER DAVENPORT 8
You, Too, Can Learn to Worry .... GURNEY WILLIAMS 12
Helping Hand .... GUS LUNDBERG 75
Cover .... CHESLEY BONESTELL

The characters in all stories and serials in this magazine are purely imaginary. No reference or allusion to any living person is intended.

Editorial and Executive Offices, 640 Fifth Avenue, New York 19, N. Y.

COLLIER'S THE NATIONAL WEEKLY Vol. 129, No. 12. **PUBLISHED WEEKLY** by The Crowell-Collier Publishing Company, Springfield, Ohio, U.S.A., Publishers of Collier's, Woman's Home Companion, The American Magazine. Executive and Editorial Offices, 640 Fifth Ave., New York 19, N. Y. Albert E. Winger, Chairman of the Board; Clarence E. Stouch, President; E. A. Schirmer, Executive Vice-President; T. L. Brantly, Peter J. Dennerlein, Edward Anthony, Robert T. Messler, E. P. Seymour, John W. McPherrin, Vice-Presidents; Denis O'Sullivan, Secretary; C. F. Norsworthy, Treasurer.

SUBSCRIPTION PRICES: United States and Possessions, and Philippine Islands, 1 year $5.00; 2 years $8.00; 2½ years (130 issues) $9.00; 3 years $10.00. Canada, 1 year $5.50. Pan-American countries in the Postal Union, 1 year $6.00. All other foreign countries, 1 year $9.00. Payments from foreign countries, except Canada, must be in United States funds, and addressed to The Crowell-Collier Publishing Co., Springfield, Ohio.

ENTERED as second-class matter at the Post Office, Springfield, Ohio, under Act of March 3, 1879. Authorized as second-class mail, Post Office Department, Ottawa, Canada.

MANUSCRIPTS or art submitted to Collier's, The National Weekly, should be accompanied by addressed envelopes and return postage. The Publisher assumes no responsibility for return of unsolicited manuscripts or art.

▶ **CHANGES OF ADDRESS should reach us five weeks in advance of the next issue date. Give both the old and new addresses.** ◀

COPYRIGHT, 1952, BY THE CROWELL-COLLIER PUBLISHING COMPANY (All rights reserved)
Publishers of Collier's, The American Magazine, Woman's Home Companion

the world's best-dressed man wears

the world's most wanted T-Shirt!

and Stretchy-Seat Briefs!

...both by Munsingwear

T-SHIRT... Exclusive non-sag NYLON-reinforced neckband stays flat, trim and handsome for the long, long life of the garment!

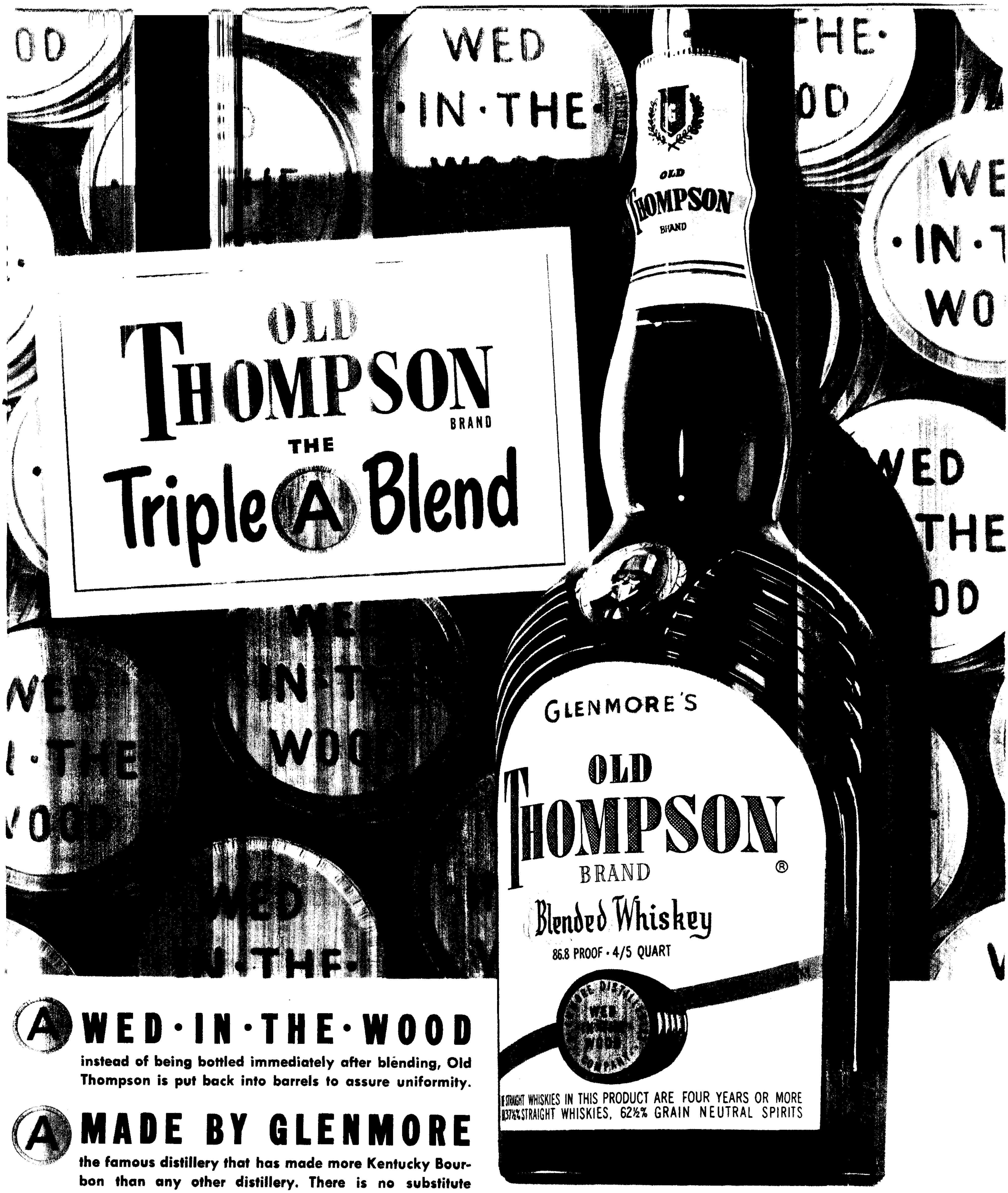
$1.50

STRETCHY-SEAT BRIEFS
Horizontal rib SEAT stretches up and down as you bend. No-gap vertical fly is self-adjusting. Comfort pouch assures no-chafe masculine comfort.

$1.00

Munsingwear

for comfort and fit it must be knit


WED · IN · THE · WOOD
OLD THOMPSON BRAND
THE Triple A Blend
GLENMORE'S
OLD THOMPSON BRAND ®
Blended Whiskey
86.8 PROOF · 4/5 QUART
STRAIGHT WHISKIES IN THIS PRODUCT ARE FOUR YEARS OR MORE
37½% STRAIGHT WHISKIES, 62½% GRAIN NEUTRAL SPIRITS

A WED · IN · THE · WOOD

instead of being bottled immediately after blending, Old Thompson is put back into barrels to assure uniformity.

A MADE BY GLENMORE

the famous distillery that has made more Kentucky Bourbon than any other distillery. There is no substitute for experience.

A BLENDED IN KENTUCKY

by Kentuckians whose "touch-of-quality" has been a family tradition for three generations.

GLENMORE DISTILLERIES COMPANY
LOUISVILLE, KENTUCKY

The straight whiskies in this product are four years or more old. 37½% straight whiskies—62½% grain neutral spirits.

© G. D. Co.

WRINGER WASHERS

In one wash-each piece separately sudsed!

Get really clean clothes every washday the G-E "Quick-Clean" way!

Now, enjoy the speed and convenience of a washing machine but get gentle "washed-by-hand" care and cleansing.

G-E Activator® Washing action puts *every piece of your laundry* through three separate washing zones—light, medium and vigorous. That means each piece of your wash gets the actual cleansing action it needs to give you a shining clean wash you'll be proud of!

So easy! So economical!

One-Control Wringer starts, stops and reverses easily and quickly!

Adjustable Timer can be set to automatically shut washer off any time within a 15-minute wash cycle.

No oiling! Only four moving parts... permanently lubricated at factory.

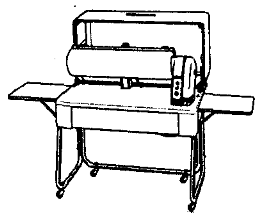
No expensive installation—your General Electric Wringer Washer rolls to store away if desired. Your G-E dealer is listed in the classified section of your phone book under "Washing Machines."

Stop in and ask him to show you this washer. Model 372 illus. General Electric Company, Louisville 2, Ky.

Enjoy ironing without standing or straining!

Ironing is quick, smooth sailing when you're sitting in comfort behind this wonderful, easy-to-manage General Electric Rotary Ironer.

The 26" ironing roll takes care of your laundry in a hurry. Adjustable ironing temperature, two speeds.



IRON IN COMFORT WITH ROTARY IRONERS

WASHERS, DRYERS, IRONERS to save you washday work

GENERAL ELECTRIC

The Cover

Accurate to the last, minute specification, the cover painting that is this week's frontispiece shows the staggering climax of man's first flight into the unknown reaches of space. At this precise moment in its *journey, the nose section (third stage), containing* crew and cargo, has disengaged itself from the second booster rocket unit. While the nose soars on and up in a northeasterly direction from this point 40 miles in the air, the steel mesh parachute of the second booster has opened and begins the long drop into the Pacific Ocean below. For the *full* story of man's inevitable invasion of the heavens, dramatically illustrated and simply told, turn to page 22.

Week's Mail

General Ike

EDITOR: Many thanks for the editorial Take Off Your Blinders, Boys (Feb. 2d). The general hits our greatest weakness when he says: "There is a kind of dictatorship that comes about through a creeping paralysis of thought."

The welfare state is creating an army of bureaucrats that threatens the liberty and independence of our people. We must be alert to the danger of bureaucratic control and the granting of benefits and privileges to a favored few, or we will finally be unable to do anything without permission.

D. P. MORTON, New Rochelle, N.Y.

. . . Thanks a million for your editorial. The American people need this kind of information to realize the kind of American Ike Eisenhower really is. He is the first Republican to capture the imagination of many of us out here in California.

We are sure that if his story is presented to the American people, they will (1) insist on his nomination as the Republican standard-bearer and (2) elect him as President.

WILLIAM H. ANDERSON, Burbank, Cal.

. . . When you attempt to use quotations from Eisenhower to show where he stands, as against Taft's record, you are trying to replace one pair of blinders for another pair! If you will refer to many of Truman's announcements of his ideas of government, economy, etc., you could make just as strong a case for him.

Taft has not only been fearless in his announcements of principles and intentions, but his record proves that he sticks to his promises regardless of the political consequences.

H. LEE KINSLEY, Rocky River, Ohio

. . . On July 4, 1950, I submitted the following to the first 10 voters I happened to meet: "We, the undersigned registered voters, petition Dwight D. Eisenhower to consent to run for the Presidency of the United States and we hereby pledge him our support."

Five of the signers were Democrats, the others were Republicans. True, that is a very small straw; still, it indicates the direction and strength of the wind. At least it convinces me that if it were left to the people—not self-interested politicians greedy for pelf and power—General Eisenhower would be elected by an overwhelming majority.

H. L. KELLY, Waldport, Ore.

New Faith

EDITOR: I have read an article in Time magazine that labeled your special issue, The War We Do Not Want, as "a bad idea." I heartily disagree.

As an average citizen, and mother of a small child, it was with a feeling of intense faith in the human race that I read the en*tire* issue, *and recommended it to my* friends.

Too many of us have dreaded the thought of future hostilities using atomic weapons as a sort of ending, a complete oblivion. A future for our children seemed impossible to picture.

But when the great minds who compounded your issue foresaw that in the future the world could be salvaged and rebuilt, that atomic warfare need not mean complete obliteration, one finds new faith in the future.

BUNNY DIXON, Montreal, Canada

Always Military

EDITOR: This may come as a surprise to *you,* but your statement in Week's Mail (Feb. 2d) "The Coast Guard is a part of the military services only in time of war" is incorrect.

Public Law 207-81st Congress, 1st Session, Chapter 1, Section 1, states "The Coast Guard as established January 28, 1915, shall be a military service and a branch of the Armed Forces of the United States *at all times.*"

I believe you should retract your erroneous statement.

O. C. HINNEN,
Lieutenant, U.S. Coast Guard,
Washington, D.C.

For our incomplete information, gentlemen, we apologize.

Freedom to Disagree

EDITOR: On reading Week's Mail in your magazine, there is just one thing that gets me down and ruffles the fur on my neck. That is the letters from those people who upbraid you because your stand on any question doesn't agree with their own.

More than half the time I don't agree with you either. But I certainly don't condemn you for disagreeing with me. After nearly 60 years of life I have come to the conclusion that all progress has its seeds in disagreement.

When I catch you trying to agree with me more than 66⅔ per cent of the time I am going to stop reading your magazine.

LEVI B. WILLIAMS, Seattle, Wash.

Mrs. Rosenberg in Korea

EDITOR: I'd like to congratulate Anna Rosenberg and James C. Derieux on the fine article This I Saw in Korea (Feb. 2d). Mrs. Rosenberg gives us a real picture of the life there. My son is there, too.

Since I've read the article I seem to understand better why the boys are there and what a fine job they are doing. Somehow Korea doesn't seem so far away now.

MRS. LEE JONES, West Eaton, N.Y.

. . . The report of Assistant Defense Secretary Anna Rosenberg's visit to the front lines of our troops in Korea was moving beyond expression. In the face of current defeatism and the glum idea that Americans "aren't what they were," General Van Fleet's statement, "There *never* was a generation like this one," was encouraging indeed.

Regardless of race, color, religion or ancestry, American boys—and girls—are still able to take it; and I suspect that, as compared to the service men and women of World Wars I and II, these in the service of our country today have a greater understanding of what it is all about. I should be greatly surprised also if those fighting in the American armed forces in Korea did not return home eventually with a deepened appreciation of the courage, idealism

(Continued on page 10)

Chesterfield
CIGARETTES
LIGGETT & MYERS TOBACCO CO.
CHESTERFIELD

ALL OVER AMERICA—SMOKERS ARE CHANGING TO CHESTERFIELD

At Chasen's famous Hollywood restaurant CHESTERFIELD is the largest selling cigarette by more than 2 to 1

Dave Chasen OWNER

DANNY THOMAS buys his Chesterfields

See him co-starring in
"I'LL SEE YOU IN MY DREAMS"
A Warner Bros. Production

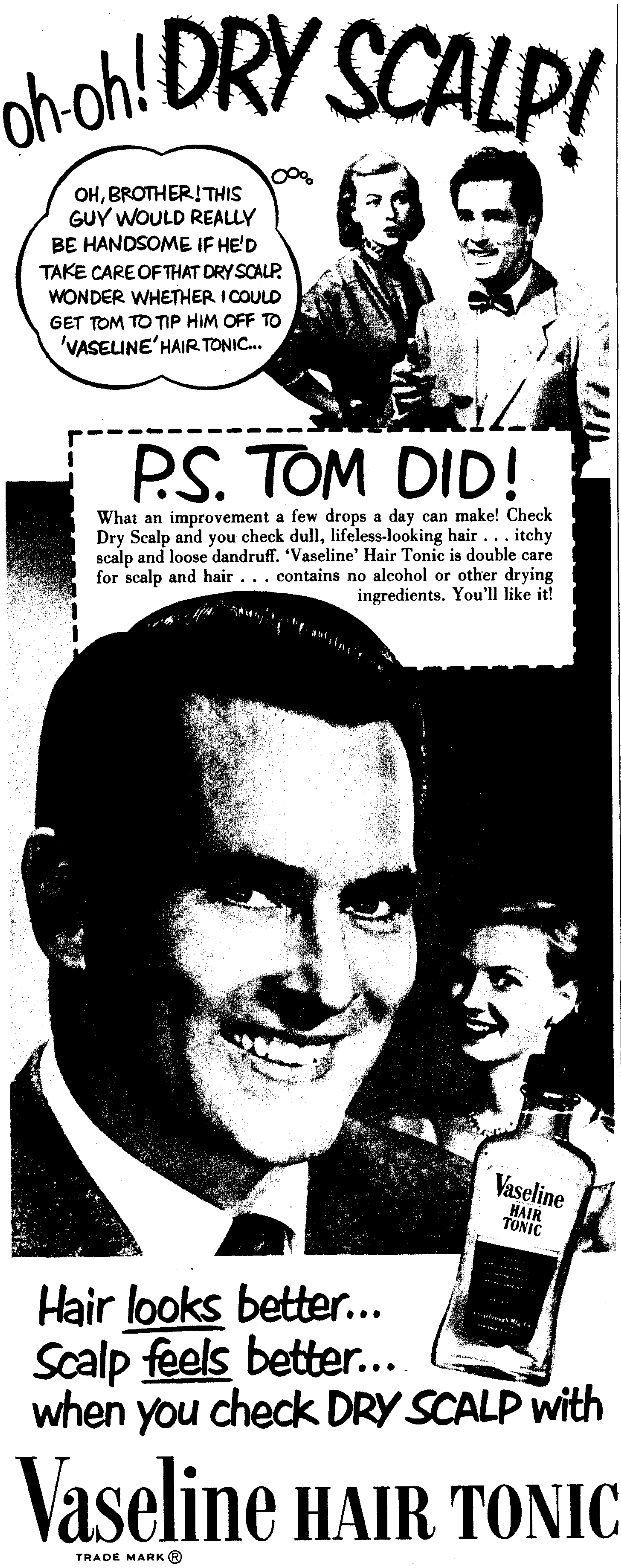
2 to 1 because of...

MILDNESS—plus
No Unpleasant After-taste*

*FROM THE REPORT OF A WELL-KNOWN RESEARCH ORGANIZATION

AND ONLY CHESTERFIELD HAS IT!...TRY 'EM TODAY!

Copyright 1952, Liggett & Myers Tobacco Co.



oh-oh! DRY SCALP!
OH, BROTHER! THIS GUY WOULD REALLY BE HANDSOME IF HE'D TAKE CARE OF THAT DRY SCALP. WONDER WHETHER I COULD GET TOM TO TIP HIM OFF TO 'VASELINE' HAIR TONIC...
P.S. TOM DID!
Vaseline HAIR TONIC
Hair looks better... Scalp feels better... when you check DRY SCALP with
Vaseline HAIR TONIC

What an improvement a few drops a day can make! Check Dry Scalp and you check dull, lifeless-looking hair . . . itchy scalp and loose dandruff. 'Vaseline' Hair Tonic is double care for scalp and hair . . . contains no alcohol or other drying ingredients. You'll like it!

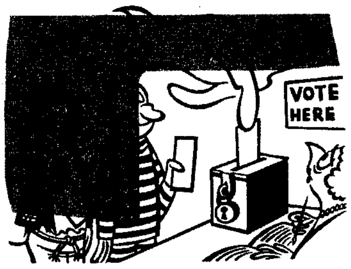
TRADE MARK ®

VASELINE is the registered trade mark of the Chesebrough Mfg. Co., Cons'd

48 STATES OF MIND

By WALTER DAVENPORT

Had a phone call from a fellow we know only as Elegant Edwards. First met Mr. Edwards in Jefferson Parish, Louisiana, back in the mid-thirties. He was then sojourning in one of those government transient camps which promptly became hobo hostels. Hadn't heard from Mr. Elegant Edwards until he called the other day with political gossip. Said he was a registered voter in at least six states and maybe more. Used to register from government jungles and vote like crazy. In Santa Fe, New Mexico, for example. Meanwhile, under the direction of former Judge Miguel A. Otero, Republican women in Santa Fe County are trying to purge the registration lists of such transients as Mr. Edwards, and of former members of the Civilian Conservation Corps (which went out of existence 12 years ago), dead people and imprisoned convicts. The Santa Fe voter registration rolls contain more names than there are adults in the county. But they're all voted every election. Mr. Edwards said he intends to vote. Isn't particular about where. Says it's every citizen's duty to vote.



* * *

Just in case you hadn't noticed it, spring returns to these 48 on the day before the date of this issue of Collier's. What we're talking about is March 21st. Among those welcoming it is Mr. George Brintcalf, of Springfield, Massachusetts, who says he's been roughing it ever since the first of December. "Yessir," says Mr. Brintcalf, "real roughing it. Ain't had the heater turned on in my car but twice in three months and then only to see if it worked."

* * *

Warning to all bees. There's a law in Michigan forbidding any bee to enter that state except in a sealed package. Several bees have ignored this statute only to be severely beaten up by the police.

* * *

Naturally everybody knows what Hoppin' John is—cowpeas, bacon and rice. We must have eaten tons of the stuff in our wanderings through the South. But Limpin' Kate is something else again. Anyway, that's what we hear from Mrs. Julie Lord, of Charleston, South Carolina, who says her grandmother used to make it in caldron lots. No recipe available now, though. She'd like to throw together a few batches of Limpin' Kate and will thank anyone for telling her how.

* * *

Here's a lady in St. Paul, Minnesota, who mistakenly thought her husband was going to emit salvos of rousing cheers when she told him she had decided to enter a new evening class being offered by Macalester College, which is also in St. Paul. "What classes?" "Why, fishing classes, dear. In a few weeks I'll know all about how to fish, darling, and then I'll be able to go along with you and Joe and Al and the rest of the boys. Won't it be fun, dear?" We regret to report that her husband said it wouldn't be, that he and Joe and Al didn't want any women tagging along when they went fishing, that he wished Macalester College would mind its own business, and anyway she couldn't go. So she's taking the new course anyhow—the Fishing Widow course—along with Florence, Mamie, Bella and several other girls whose husbands don't like the idea either. This lady tells us the girls are all going fishing with their husbands, whether their husbands like it or not. Taking the children with them, too. Husbands talking of picketing Macalester.

* * *

Not that we're taking any sides, mind you, but should Senator Taft run short of dough in his quest for the Republican nomination he might drop in at the First National Bank in Lake Geneva, Wisconsin. There he will find $3.66 credited to his father, William Howard Taft. It's all that's left of the Taft for President Fund amassed in 1908, just before the elder Taft's election. If the senator talks fast enough, they may let him have it.

* * *

Until he read the recent George (Bringing Up Father) McManus articles in Collier's (Jan. 19th, 26th; Feb. 2d), Mr. C. M. Box, of El Paso, Texas, wasn't sure for whom he'd vote for President. Okay now. McManus for President—chiefly, says Mr. Box, because of the daily smiles George has given him for these many years. "Of course," says Mr. Box, "over the same period, our rulers in Washington have caused me to smile, too. But ruefully, pal."

* * *

Lady in Oklahoma has demanded a divorce on the grounds of misrepresentation. She charges that her husband, while courting her, led her to believe he was a bricklayer making $2.75 an hour, when actually he was only a banker.

IRWIN CAPLAN

* * *

Under the influence of radio's daytime serials, Hanna Moore, aged three, and her sister Marsha, who is a year older, stewed up one of their own. Their mother, Mrs. Norma Moore, of Hawthorne, California, took a little time out to listen in on what things were coming to, if at all. Hanna: "Be careful, Mrs. Stone. You just ran over my baby." Marsha: "I'm sorry, Mrs. Gailer. Lemme look. Yup. She's dead all right." Whereat the Misses Moore sang a duet: "We'll bury her out on the lone prairie-eeeee where the coyotes can howl over her bones . . ." The program ended with a commercial by Hanna, reports Mother Moore:

THE PRIVATE LIVES OF PUBLIC ENEMIES

The astonishing story of the prison psychologist who went "inside" to test the six most astounding characters you've ever met in or out of any jail..."Operation Wife"—smuggling a girl inside Cell Block 7—is just one of their fabulous adventures!

COLUMBIA PICTURES
presents
A STANLEY KRAMER
COMPANY Production

"MY 6 CONVICTS"

#196382
—House Souse
#243976
—Timid Soul
#184613
—The Brain
#275813
—"Lonely Heart"

#254319
-Ladies' Man

#153462
—King of Cons

From the Book of the Month
that bowled the nation over!

MY
SIX
CONVICTS

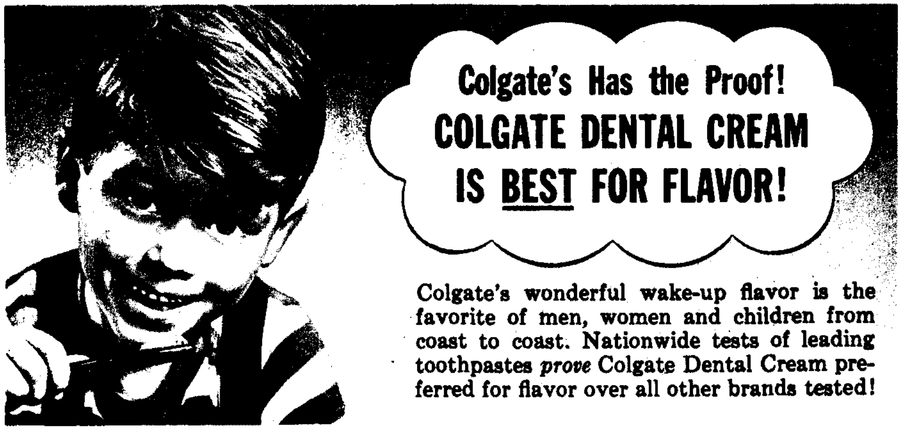
Columbia Pictures presents A Stanley Kramer Company Production MY SIX CONVICTS with Millard MITCHELL • Gilbert ROLAND • John BEAL • Marshall THOMPSON • Screen Play by MICHAEL BLANKFORT • Based on the book by DONALD POWELL WILSON • Music Composed and Directed by Dimitri Tiomkin • Associate Producers EDNA and EDWARD ANHALT • Directed by HUGO FREGONESE

ONLY
COLGATE DENTAL CREAM
HAS PROVED SO COMPLETELY IT
STOPS BAD BREATH*!

*SCIENTIFIC TESTS PROVE THAT IN 7 OUT OF 10 CASES, COLGATE'S INSTANTLY STOPS BAD BREATH THAT ORIGINATES IN THE MOUTH!

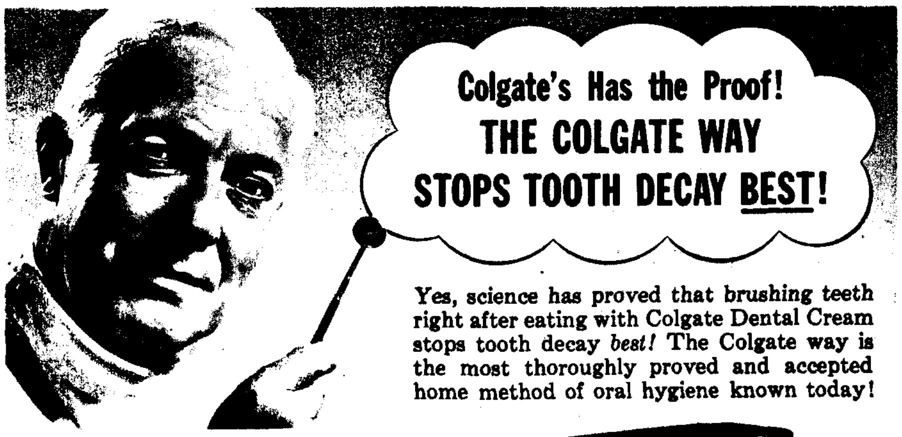
Colgate's Has the Proof!
IT CLEANS YOUR BREATH WHILE IT CLEANS YOUR TEETH!

For "all day" protection, brush your teeth right after eating with Colgate Dental Cream. Some toothpastes and powders claim to sweeten breath. But only Colgate's has such complete *proof* that it stops bad breath.* There's a big difference!



Colgate's Has the Proof!
COLGATE DENTAL CREAM IS BEST FOR FLAVOR!

Colgate's wonderful wake-up flavor is the favorite of men, women and children from coast to coast. Nationwide tests of leading toothpastes *prove* Colgate Dental Cream preferred for flavor over all other brands tested!



Colgate's Has the Proof!
THE COLGATE WAY STOPS TOOTH DECAY BEST!

Yes, science has proved that brushing teeth right after eating with Colgate Dental Cream stops tooth decay *best!* The Colgate way is the most thoroughly proved and accepted home method of oral hygiene known today!

COLGATE RIBBON DENTAL CREAM

No Other Toothpaste or Powder
OF ANY KIND WHATSOEVER
Offers Such Conclusive Proof!

READER'S DIGEST reported the same research which proves that brushing teeth right after eating with Colgate Dental Cream stops tooth decay best! And, while not mentioned by name, Colgate's was the *only* toothpaste used in this scientific research.

Get PURE, WHITE, SAFE COLGATE'S *Today!*

"And now, ladies and gentlemen, about your pet dragons. Are they happy? Do you feed them Gobbleup Monster Rations? Are your little dragons getting their locked-in vitamins?" All in all, Mother Moore found it quite professional.

* * *

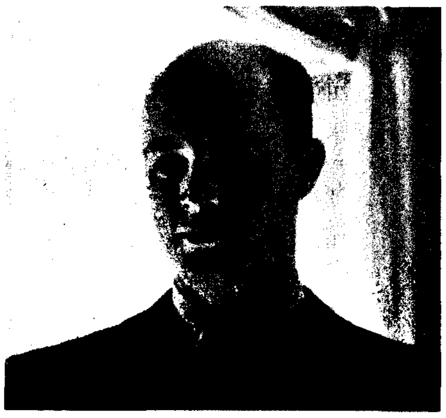
Mr. Jack Silverstream was idling through his newspaper in Fargo, North Dakota, when he got a shock. It said there that a good hot bath might easily remove all the world's political and ideological differences. Let the heads of snarling governments, or their deputies, get into a large steaming tub together and slosh around for, say half an hour; they'd emerge relaxed and friendly. Mr. Silverstream became so enthused that he has even written the newspaper headline for the story announcing the event: "Joe and Harry Dunk In Peace."

* * *

Also, one we almost threw away. It started out to tell us that things are looking up in Coiced Lagan Tuad-Gabair and really great things might be expected of Coras Iompair Eireann, to say nothing of the Taoiseach. Furthermore, success is predicted for Padraig O Siochfhradha and the An Coimisiun Logainmneacha. Just a report in Gaelic about the increasing health of Eire. And we thought, at first, it was another government directive.

* * *

One of the many reasons you enjoy the short stories in this magazine is that our colleague Lonnie Coleman, an associate editor, helps select them. If you haven't read his new novel—Clara, 286 pages, Dutton, New York, $3—you're not doing right by yourself. Acclaimed by reviewers far and wide, it's Mr. Coleman's fourth novel, the first appearing in 1944 when, at twenty-four, he was cargo officer on a Navy transport. And although he's one of the best judges of the short story we know, he says that, personally, he can't write them.



* * *

Citizen in Oregon writes that his wife wants a neat picket fence in front of the house, but he's trying to convince her that he can't afford to pay the taxes on it. A year ago he painted his mailbox and his taxes went up $28.17.

* * *

It is the opinion of Mr. Hal Curtain, of Wilmington, Delaware: "Kids today are just about the same as they were in previous generations, in most disrespects."

Week's Mail

CONTINUED FROM PAGE 6

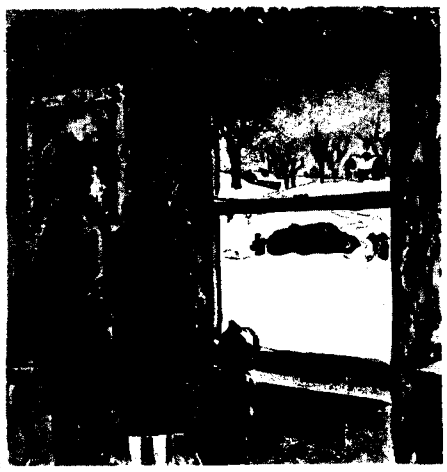
and ordinary decency of the fighting men of the others of the United Nations who have sent troops to Korea.

PALMER VAN GUNDY, La Canada, Cal.

. . . Speaking for all parents with sons in Korea, I thank you for the heartening story by Anna Rosenberg. It stresses the hardships not so much as the heroism.

PELHAM BARRETT, Southern Pines, N.C.

Snowed In



EDITOR: Alan Dunn's cover picture (Feb. 2d) saved the day for me—and I wonder how many others? I picked up the magazine and suddenly remembered I hadn't checked our oil supply for some time. Laying aside the magazine I went to the tank with the measuring stick and found less than two days' supply on hand. This situation being corrected with a hurried phone call to the oil dealer, I returned to my Collier's to read comfortably in my nice warm home. Your cover was a good laugh—and a real service!

E. J. RHODES, Colorado Springs, Colo.

. . . Speaking of your cover of the snow-bound oil truck, I am sure my husband would get out and help shovel, if his wife and child were uncomfortable.

Where we come from, most husbands would do likewise.

MRS. M. F. RARICK, Pataskala, Ohio

Negro Colleges in N.C.

EDITOR: I am a temporarily displaced Carolina rebel and wish to commend you on your fine article about Senator Clyde R. Hoey (You Know He's a Senator, Feb. 2d). I have the greatest respect for his moral integrity and his political courage, and it is indeed gratifying to see these facts of his character recognized.

However, there is one item in the article that I would like to question: this is in re the statement that North Carolina has ". . . more than 7,400 Negro schoolteachers and five Negro colleges." The 1952 World Almanac states that we have 12 Negro colleges in North Carolina, and I have used this fact several times in discussions of my state's progressive attitude toward the colored people.

J. WEDDELL HARRISS, Newark, Ohio

The World Almanac and reader Harriss are correct.

Plea for Thrift

EDITOR: When is our government going to give thought to saving money instead of spending with wild abandon? No matter what we want to purchase, by careful search, we can usually find it cheaper in cost (not necessarily in quality). It is the natural tendency of my Scotch ancestry to balk at all this profiteering. Hasn't it ever occurred to our high-level officials that this inflationary spending is a constant erosion of our morale as well as stability?

That grand gentleman, former President Herbert Hoover, gave them a plan for thrift, but rather than bend a few noses they cast it aside. If more people would rise in protest we would get results.

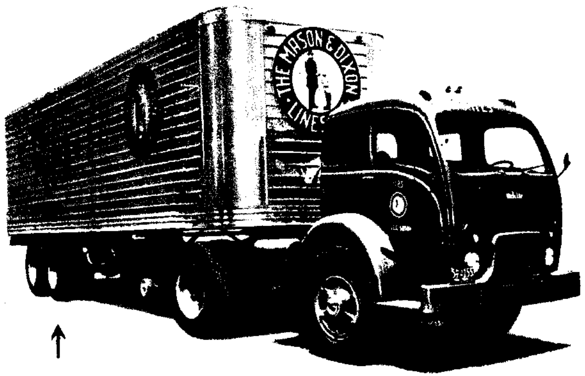
ETHEL INNES EDING, Palo Alto, Cal.

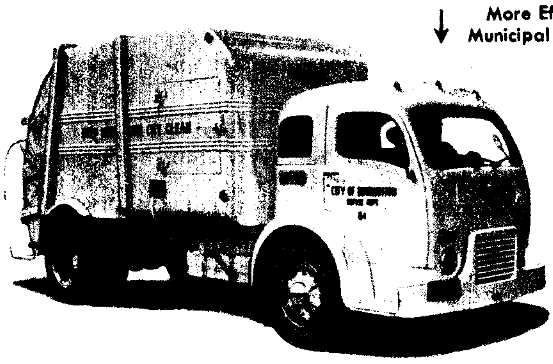
[illegible] White provides cost-saving
SPECIALIZED DESIGN at production price

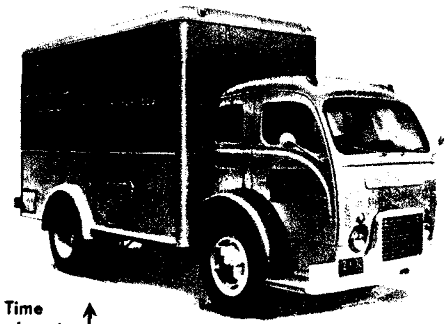
Here is a sampling of America's most diversified line of motor trucks. Each White Truck shown is an outstanding example of correct truck application. Each is exactly designed to perform its particular job most efficiently . . . most economically.

This is the only sound basis on which to buy transportation service for any business . . . because White has brought production methods and efficiency to the building of such a diversified line . . . so that *your* specific requirements can be met *exactly* . . . with trucks that will earn more on the road . . . cost less on your books.

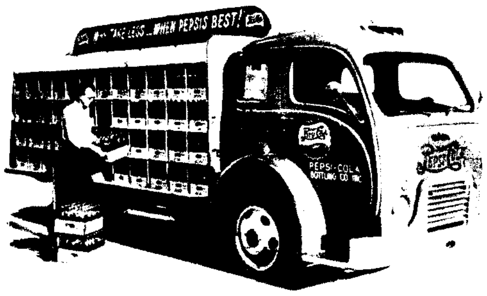
THE WHITE MOTOR COMPANY • Cleveland 1, Ohio
The White Motor Company of Canada Limited • Factory at Montreal


More Earning Power in Highway Transport

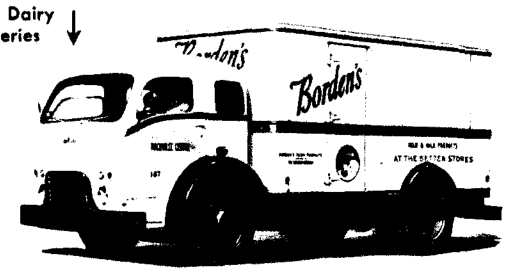

More Efficient Municipal Services

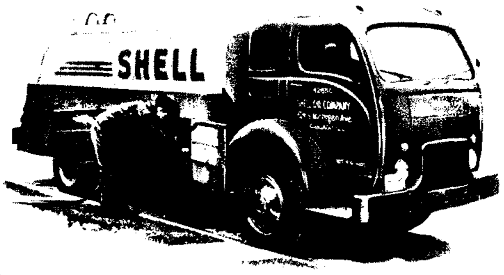

City Delivery Time Substantially Reduced

Two Foot Longer Van Legal in all States


More Soft Drink Deliveries in Less Time

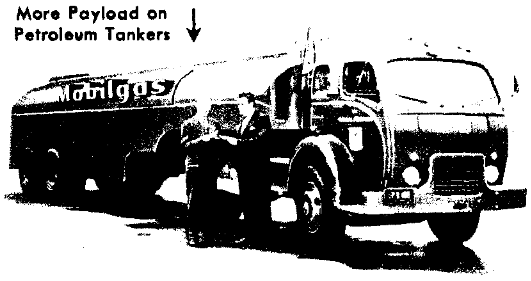
Dump Trucks that Get More Work Done

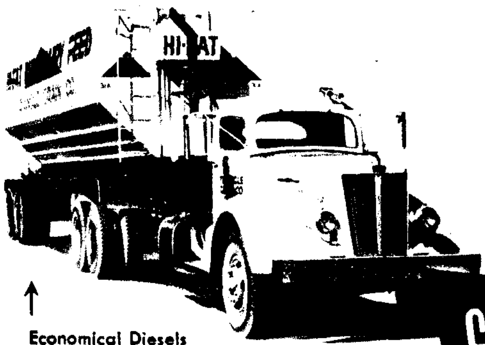

Cost-Savings on Dairy Products Deliveries


Fuel Oil Deliveries Made Faster, Cheaper

Extra Capacity, Rugged Cement Mixers

Durable and tough for Extra Heavy Hauling


More Payload on Petroleum Tankers


Economical Diesels for Highway Hauling

For more than 50 years the greatest name in trucks

SPECIALIZED DESIGN **White**

White Specialized Design Costs Less . . . Earns More . . . in Every Transportation Service

White Mustang Power • White Diesel Power • The White 3000—tips its cab to service • Sterling-White "Big Jobs" • White Freightliner

NEW
Carter's
TRIGS
oks smart
Trigs
x front!
nfort!
Long-lif
waist and
leg b
COMFORT
facts on figures

DAD's Trigs athletic shirt, 34 to 46, $1.00
and Briefs, 28 to 44, $1.10
*Briefs with mesh side panels for dress
or summer wear, 28 to 44, $1.25*
YOURS can be Briefs, Midlengths, Athletic or T-Shirts.

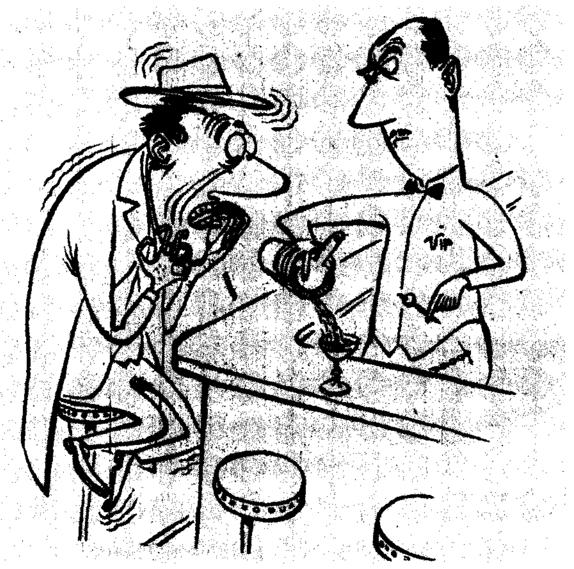
*Pat. applied for

Psst! Carter's makes fine underwear for the entire family!

The William Carter Co., Needham Heights 94, Mass.

You, Too, Can Learn to WORRY

By GURNEY WILLIAMS



VIRGIL PARTCH

He was always afraid the Martini glass wouldn't be filled

SOME time back, caught in a rainstorm, I popped into a convenient bookstore and browsed around until things blew over. In the middle of my browse, it occurred to me that writers and publishers are devoting altogether too much time to inspirational literature such as: It's Fun to Fret, Nuts to Neuroses, Unfurrow Your Forehead, and Why Stew? (The last turned out to be a cookbook, and I called this to the attention of the clerk.) Thoroughly aroused by this imbalance of thought, I wrote an antidote called what this article is called.

So far, the idea has worked splendidly.

People who used to bounce into my office with smiles on their faces and laughs on their lips now drag themselves to the elevator in various stages of complete depression simply because I learned the secret of worrying and making other people worry.

If your life is one of tranquillity, I can change that. Take the case of Mr. X (Aubrey J. Marshall, of Shaker Heights, Ohio), who visited me recently, beaming and at peace with mankind and himself.

"What's eating you?" I asked. "You seem cheerful and distressingly up."

"I am," he laughed.

"What about that pain in your left shoulder you mentioned some months ago?"

"Still got it," said X, chuckling. "I refuse to worry about it."

I just looked at him until he began to shift uneasily.

"I think you'd better whip up a little hypochondria," I told him. "Take a dim view of things. You're a menace to society's maladjusted."

He looked dismayed. "You think so?" he asked, his short face turning into a long one.

"Yes," I said firmly.

By the time X left, after listening to my discomforting story about the pain in my right leg, he seemed pretty well stricken—another anxious member of that majority of the human race, the normally unhappy. It had, as you've seen, been a simple matter to divert his positive, nonworry attitude into one of negative concern.

Worrying isn't difficult. The first thing to do is figure out what makes you carefree, then start biting your nails about it. And if you can't determine the cause of your serenity, you've really got something to keep you awake nights. You don't have to base your worries on obvious irritants like income taxes, falling hair, or atom bombs; any triviality can be built into a harassment. I know one man who began worrying about whether the bartender would fill his Martini glass to the brim without having to add a dash of gin from the shaker. After several weeks of this, he got to the point where he couldn't even walk into a bar; and as of today, that man is completely down.

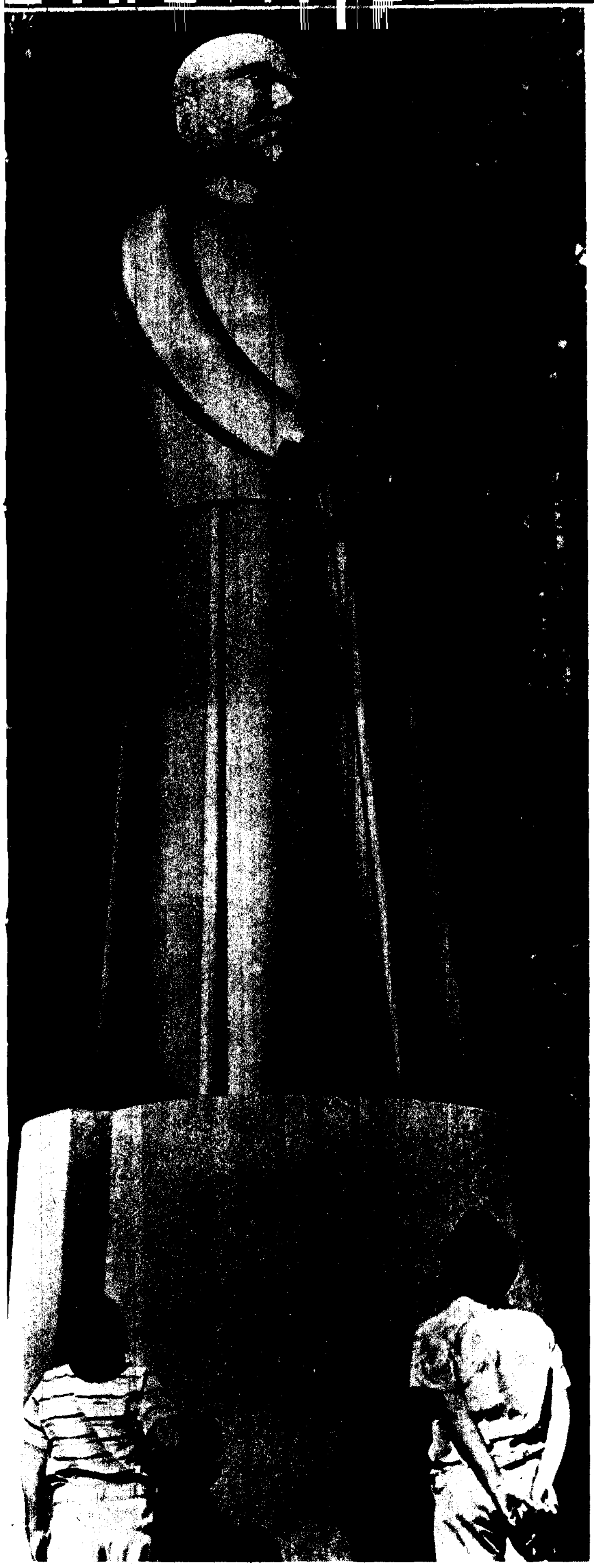
There is also the case of a female acquaintance who, at parties, has stopped sniggling and giggling at mediocre wisecracks and is therefore no longer in danger of having her head bashed in with a bridge lamp by the people with whom she associates. She now sits morosely in corners, having overcome her high spirits by starting to worry about having her head bashed in with a bridge lamp by the people with whom she associates.

I am acquainted with a businessman who spends all his spare time worrying about what he'll do with his blank checks dated "19—" when the year 2000 comes around. He's 55 now and will be 102 then, if he lives so long, but this is a good example of how easy it is to get worked up about something.

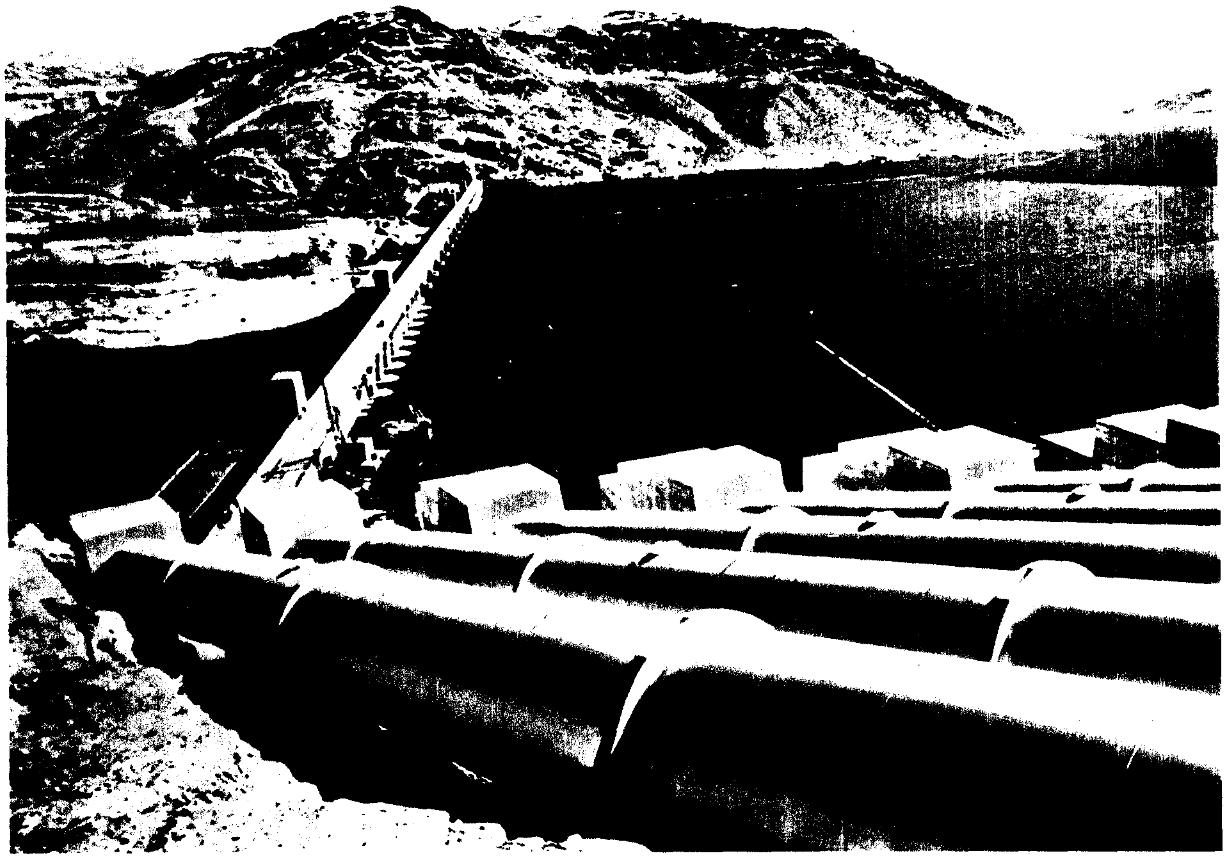
For an excellent, foolproof starter, you could start worrying about your shoelaces—whether they'll break at 7:28 A.M. and cause you to miss a train and therefore an appointment that would mean the difference between swinging a business deal or crawling home on all fours.

I don't have to make suggestions to anyone with a normal flair for anxiety. However, if you can't help yourself into an uneasy frame of mind, drop into my office for a consultation. My biggest worry is that you will, so don't cheer me up by staying away. ▲▲▲

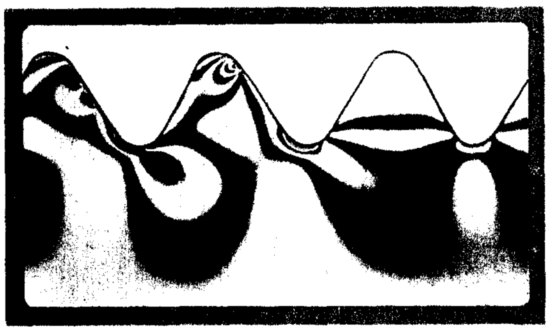
Only STEEL can do so many jobs so well



STAINLESS STATUE. In San Francisco's Chinatown stands this 20-foot statue of Sun Yat-sen, renowned scholar and first president of the Chinese Republic. Head, hands and pedestal are of rose granite, but for the statesman's flowing robes, the sculptor, Beniamino Bufano, used Stainless Steel. After 14 years, time and weather have left no marks on the shining metal.



PART OF THE WORLD'S LARGEST pumping plant are these huge steel discharge lines for Grand Coulee on the Columbia River in Washington. Each line is 12 feet in diameter, was fabricated by United States Steel. Only steel can do so many jobs so well.



JOINT UNDER STRESS. This is a picture of stress patterns along the threads of a pipe joint. Crowding of lines at roots of threads indicates stress concentrations. "Three-dimensional photo-elastic stress analysis," done in U.S. Steel laboratories, helps to assure strong joints between sections of U·S·S National Pipe used in drilling for oil.

MANUFACTURED FROM ★ USS ★ TRADE MARK STEEL UNITED STATES STEEL

This trade-mark is your guide to quality steel

BUILDING BRIDGES IN A HURRY. For most of the matériel of defense, steel is essential. And because of its constantly expanding production capacity, United States Steel is able to contribute more and more of this vital metal to help safeguard America's security.

FACTS YOU SHOULD KNOW ABOUT STEEL

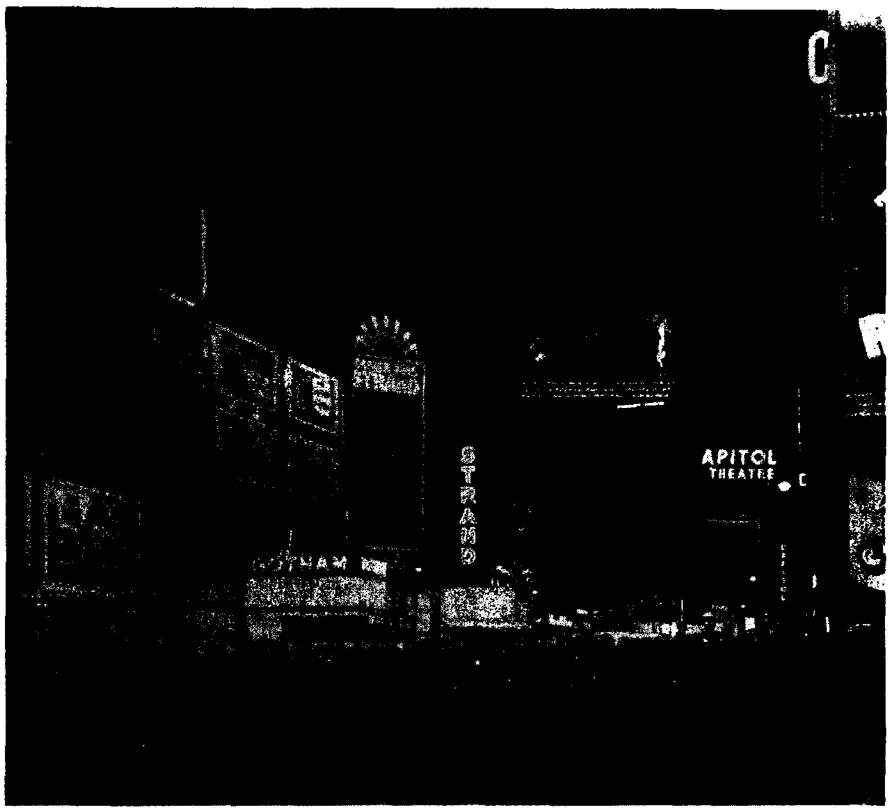
By the end of this year, the capacity of the American iron and steel industry will have increased approximately 36 million tons since 1940 . . . about 44%. It is interesting to note that this *increase* alone exceeds the *entire* annual capacity of any other country in the world.

Listen to . . . The Theatre Guild on the Air, presented every Sunday evening by United States Steel. National Broadcasting Company, coast-to-coast network. Consult your newspaper for time and station.

UNITED STATES STEEL *Helping to Build a Better America*

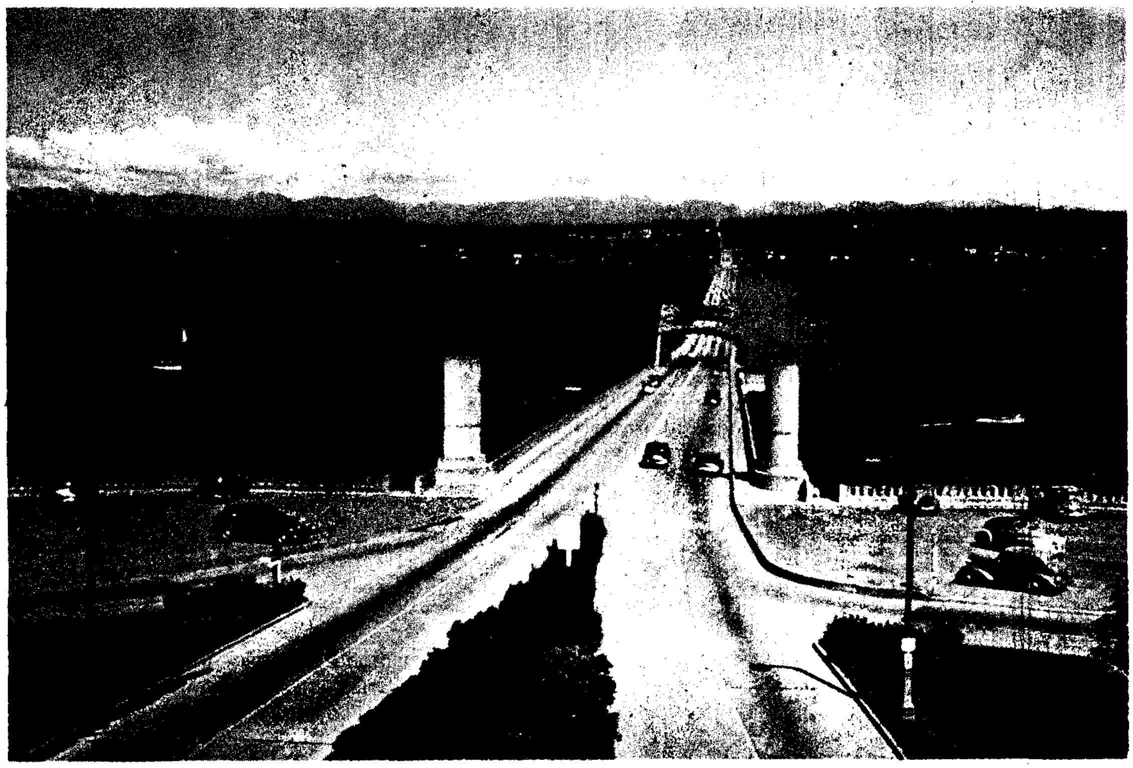
AMERICAN BRIDGE . . . AMERICAN STEEL & WIRE *and* CYCLONE FENCE . . . COLUMBIA-GENEVA STEEL . . . CONSOLIDATED WESTERN STEEL . . . GERRARD STEEL STRAPPING . . . NATIONAL TUBE
OIL WELL SUPPLY . . . TENNESSEE COAL & IRON . . . UNITED STATES STEEL PRODUCTS . . UNITED STATES STEEL SUPPLY . . . *Divisions of* **UNITED STATES STEEL COMPANY, PITTSBURGH**
GUNNISON HOMES, INC. · UNION SUPPLY COMPANY · UNITED STATES STEEL EXPORT COMPANY · UNIVERSAL ATLAS CEMENT COMPANY

BECAUSE THERE IS A DIFFERENCE



IN SAFETY... Even Times Square can be dangerous on a wet night. On slippery roads you want the "stop-on-a-dime" traction you get from a little extra tread "bite." And on any road, you want the extra margin of safety you get from a stronger, tougher tire body. *Goodyear gives you this extra safety.*

IN COMFORT... On a rough road like this on the Gaspé Peninsula, you want the most comfortable riding tire you can buy. Goodyear's tire design gives you a *smooth* ride. Goodyear's stronger cords flex easily to give you the extra resilience that absorbs *bumps and road shocks.*



IN MILEAGE... If you drove from New York City to Lake Washington, your tougher Goodyear treads would hardly show the wear. They'll keep rolling safely long after less popular tires are discarded. *No* other tire gives you the same safety, comfort and mileage. *Car makers put more Goodyear tires on new cars; car owners buy more Goodyears than any other tires.* That's the *best* proof.

More people ride on Goodyear tires than on any other kind

GOODYEAR

Super-Cushion, T. M.—The Goodyear Tire & Rubber Company, Akron, Ohio

Exposing the Psycho-Phonies

By JHAN ROBBINS

"Qualified" to practice psychiatry only by worthless diploma-mill degrees, thousands of quacks are preying on the mentally upset—and mulcting them of half a billion yearly

UPWARDS of 25,000 phony psychologists are dishing out dangerously bad advice to people in trouble today. Dr. Fillmore H. Sanford, executive secretary of the American Psychological Association, estimates that the phonies' annual take runs at least as high as $375,000,000 yearly and may be more than half a billion dollars. At its conservative low, it equals about five per cent of the amount spent each year in this country for all medical care.

This sum is not just wasted money, harmlessly spent for foolish or useless counseling. There are 8,500,000 psychiatric cases in the United States. More than 200,000 new patients are admitted to mental hospitals each year. No one knows exactly how many of these have been shoved across the border of what the law calls insanity by the callous or ignorant psycho-phonies who are operating, free of all legal restraints, in nearly all of our major cities.

In 1951, psycho-phonies (defined by Dr. Sanford as "unskilled, incompetent persons handing out advice on emotional problems") were directly responsible for these typical tragedies:

In New York, the eight-year-old daughter of wealthy parents was observed to have what her mother described as "queer ideas." They realized that she needed help, but fell into the hands of a smooth-talking quack.

At the end of six weeks of $25-per-hour "treatment," the "doctor" told the mother what he knew she wanted to hear. "Your daughter has a very superior mind," he said. "Why, only today she insisted that I had a tape recorder hidden in my desk and was taking down everything she said. Isn't that cute? Nothing wrong with that child."

Just half an hour after her phony psychologist had characterized her dangerous warning symptoms as "cute," the little girl jumped out the window of her nursery and was seriously injured.

In Los Angeles, a husband and wife who were quarreling bitterly picked a "psychologist" out of the phone book. His splashy advertisement was impressive and they were willing to do anything he advised.

He told them they were sexually mismated and suggested that they prove it to their own satisfaction by taking other partners. They did and during the next six months each drifted through a series of shoddy affairs under the supervision of their "doctor." Today the wife is in a mental institution, the husband has disappeared and their three-year-old child is in a foster home.

In Chicago, a young bride of six weeks began to develop startling spells of irritability. She wept, raged, slapped her young husband, then went into spells of deep gloom, sitting almost motionless for hours. She went to a self-styled psychologist who smiled knowingly and told her that she was having a difficult time getting adjusted to the sexual side of marriage.

He sold her on a six-month course of conferences—price $300. But her spells continued until one day, at the end of an outburst, she collapsed on the street and was taken to a hospital. There, routine tests disclosed that she was in a diabetic coma. A few months more delay in treatment might have been fatal.

Her physician assured her that her apparently neurotic behavior—the tantrums, the spells of despondency—might have been caused by her diabetic condition.

"Why did you allow yourself to be taken in by this quack?" he asked her. "Why didn't you check up on him the way you would on a regular doctor?"

"But I did!" she protested. "I saw his diploma saying he was a doctor of psychology. It was hanging in a big frame right on his waiting-room wall!"

Unfortunately anyone can be a "real" doctor of psychology. If you want to earn your degree at a recognized institution like Columbia University or the University of Chicago, it will take you nearly 10 years and cost thousands of dollars. But you don't have to do it the hard way. There are dozens of diploma mills that specialize in granting doctorates in psychology. They turn out "doctors" like sausages from a wiener machine, after a correspondence course of only a few short months.

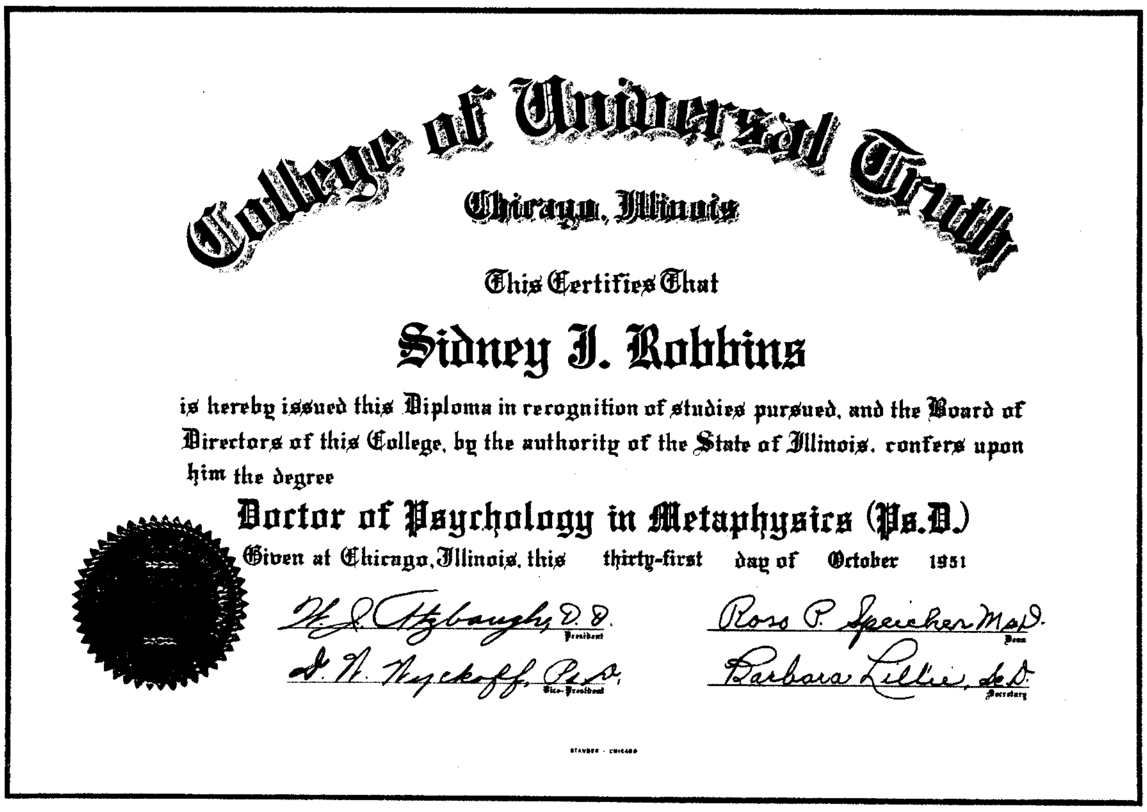
The degree, of course, is worthless academically, but most of these schools have managed to obtain state charters simply by asking for them. So far as the legal authorities are concerned, the degrees granted to these 90-day wonders are just as good as the ones that demand nearly a third of your life in study and training!

I've just become a doctor of psychology myself. I earned my "degree" in exactly four days. The name of my alma mater is the College of Universal Truth of Chicago, Illinois. It is one of the many diploma mills that are now emphasizing psychological studies by mail. I wrote to seven such places in the Midwest, and all of them answered my purposely illiterate inquiries with cordial letters and attractive pamphlets offering a handful of learned-sounding degrees—including those of Doctor of Psychology in Metaphysics (Ps.D.) and Doctor of Metaphysics (Ms.D.). Few even inquired whether I had previously graduated from kindergarten.

One letter from Dr. W. J. Atzbaugh, Ps.D., D.D., president of the College of Universal Truth, said, "The prices have been regarded by many students as unusually low . . . Where one wishes to avail oneself of the full cash discount—paying in full at once—it is possible for us to allow a 5 per cent deduction . . ."

Instead of enrolling in the College of Universal Truth by return mail, I went to Chicago to have a closer look. For a school that is reputed to be the Harvard of its kind, the College of Universal Truth is remarkably retiring. It is not even listed in the Chicago telephone book, either under its own name or that of its founder and prexy, William J. Atzbaugh. It advertises widely, however.

The reason for the college's anonymity on its home grounds became clear as soon as I located the institution at 5153 North Clark Street, a small office building on Chicago's *(Continued on page 78)*



College of Universal Truth

Chicago, Illinois

This Certifies That

Sidney J. Robbins

is hereby issued this Diploma in recognition of studies pursued, and the Board of Directors of this College, by the authority of the State of Illinois, confers upon him the degree

Doctor of Psychology in Metaphysics (Ps.D.)

Given at Chicago, Illinois, this thirty-first day of October 1951

W. J. Atzbaugh, D.D.
President

Ross P. Speicher M.D.
Dean

J. N. Wyckoff, Ps.D.
Vice-President

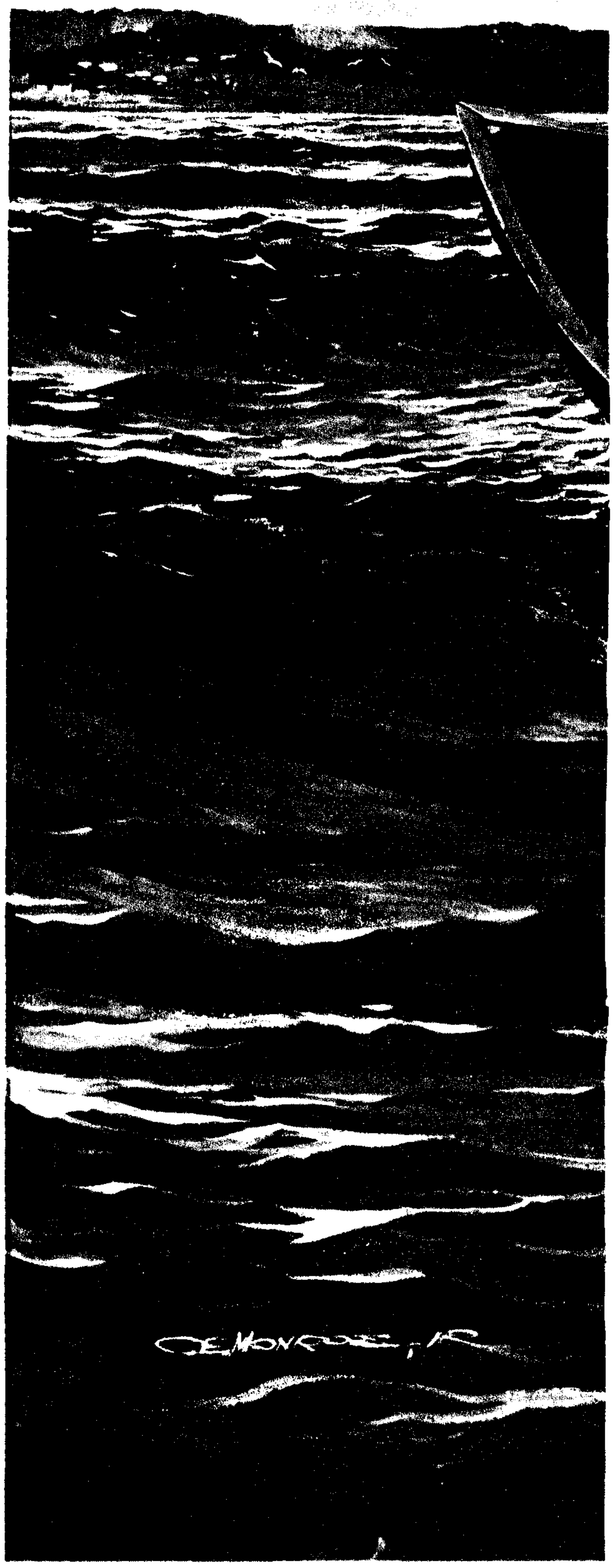
Barbara Lillie, Sc.D.
Secretary

Sidney J. Robbins, the author of this article (his pen name is Jhan Robbins), got a degree in four days. He paid $110, and the "college's" president urged another on him costing $35

The Currach Race

By WALTER MACKEN

Boasting and boats—the things Colm most despised—and now, all because of a girl and her taunting father, he was mixed up with the two of them



IT ALL developed from Colm's visit to Sorcha's house on the eve of Saint Patrick's Day. He knew that he was not really welcome there. Welcome to Sorcha, and welcome to her mother, Siobhan, and to her young brother, Fintan, but the principal person in the house, Sorcha's father, Donagh, was terribly polite to him, and listened so carefully to all his opinions that Colm felt sweat breaking out all over him. All the others combined, with their kindness and affection and good wishes toward him, would be almost completely ineffective against the disapproval of the principal member.

He hadn't wanted to come to the house at all, but Sorcha kept pressing him. "You will have to face up to him," she had said. "Let him see what you are, and he will get to like you even though you do not like the sea."

That was the trouble. Their village faced into the Atlantic. Sometimes the Atlantic smiled on them and sometimes it frowned, but the people knew all its moods now, and they plowed their stony fields in times, and in times they took their currachs out and plowed the sea for fish to augment their food supplies or to sell to the avid men from the town who came in their lorries.

Colm was different. Colm didn't like the sea. He thought it took too much for the little it gave, so he concentrated on the stony fields. His father before him was the same. His father cleared his fields of the stones, and he manured them well and plowed them and protected them with tough trees and high stone walls from the destruction of the salt-laden winds from the sea. Sometimes, then, when a family had died out, from emigration or from the quick, vicious and unexpected death that the Atlantic often brought, Colm's father, and after him Colm, would buy the empty holding and would patiently rip the stones from the fields with crowbars or sticks of gelignite, and would manure and plow and attend, so that now they had a holding of twenty acres, not counting bogland and the grouseland of the low hills.

His place was a marvel, because it actually paid. He was the only man inside eight parishes of this townland to have a farm that grew sweetly and paid a return, without him ever wetting an oar in a wave. He laid his fields out in the high-priced vegetables that he sold in the town. He kept three cows with bursting udders. He sold their milk and the butter from their milk in the town. Colm prospered from the attended land, and, with a grant from the government, he tore off the thatched roof of his house and he built a slated roof in its place. He built new stables too, with asbestos roofing on them, and they very warm and clean inside so that the cows were pleased with them in the cold Atlantic winters and gave him a good return.

So why should Donagh disapprove of him? Colm tried to figure it out, sitting there in the wooden chair out from the open fireplace. He was a big man, with large capable hands that he was wiping against each other now. He had a big face that was shaved clean and he had on a new navy-blue suit with the tailor's crease still in it. Donagh was leaning back in his chair, one hobnailed boot resting on his knee. He was dressed in the coarse homespun trousers and the gray wool shirt and the white bainin coat. What was good enough for my father is good enough for me, was the impression he gave.

He was sixty years and more of age, but he was long, lean and lithe, and only gave away his age in the temple gray of his wiry black hair and the few gray bristles of his unshaven face. His stomach was as flat as the top of a table, and although Colm knew he hadn't more than ten shillings in the blue jug on the dresser and wasn't likely to have in the future, all the same Colm felt that Donagh was a better man than he would ever be, and every line of the body of the man, every weather wrinkle on his brown face, said the same thing over and over again.

Colm thought: Will I go away now altogether? Then he looked over at Sorcha. She was at the table by the dresser, drying the dishes for her mother. Her hair was black too, and it waved in an unruly fashion, and her skin was very clear, and she was wearing a blue dress with white dots on it that was belted to her narrow waist, and the way she was standing he could see the long, shapely length of her thigh. Her eyes caught his and she seemed to be saying: Don't go away, and Colm realized how much he loved Sorcha, so he said to himself: To hell with the oul divil, and sat straight in his chair and stopped rubbing his hands together.

"So you don't like boats, Mister Colm?" said Donagh, very politely.

"I didn't say I didn't like boats," said Colm. "I just said that there's too much time taken up with boats in the village. That's all I said. I like a boat now and again. I like to take a currach out on the sea of a Sunday and catch a few fat pollack on the long line and cook them for the supper, but I think that the more a man gives to his land the more he gets out of it, and the more he gives to the sea the less he gets out of it, and if it doesn't kill him in the end, it drains the life out of him."

NOW I'm done with, he thought, seeing the flash of dismay in Sorcha's eyes. I should have kept my big mouth shut. It's many's the time a person's mouth broke his nose, but I'm not a hypocrite, and if Sorcha really was for me, she would choose between her own father and myself and be done with it. It wasn't that, either, he knew. It was just that she loved her father and wouldn't hurt him. Although how anybody could love the oul divil, I fail to see, Colm thought sourly.

"It wouldn't be that you'd be afraid of the boats, now, Mister Colm?" Donagh went on, as polite as ever, like the blade of a sharp gutting knife. "You're the oddest man that ever was bred in this village, if you are."

"It's just that we don't agree," said Colm, "and maybe now we better leave it there."

"Fair enough," said Donagh. "That's where we'll leave it. Would you come over to Kineally's beyont now, and we'll drink a glass of stout together, or do you be against stout-drinking too?"

"All right," said Colm, "I will go to Kineally's with you." This is kiss good-by now, he thought. He had told Sorcha that he didn't like coming into her house. He never would be able to get around to saying: "Sorcha and mesel' want to be married, Donagh, and she would like you to like it if you can."

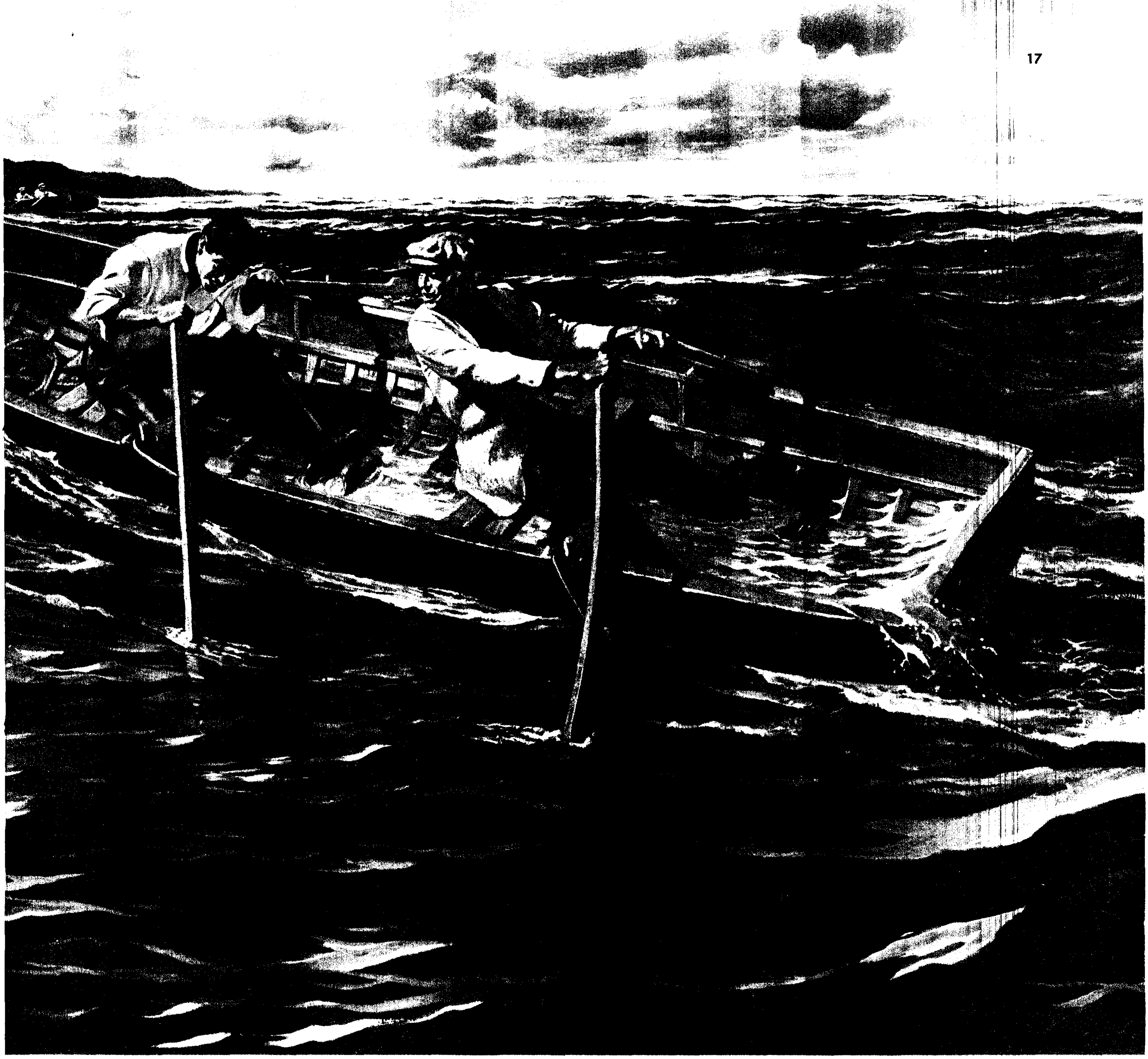
Everyone in the whole place knew about Sorcha and himself—even Donagh—but it would choke Colm to get the words out. So he didn't, and now they would have to seek another solution.

"We won't be long, Siobhan," Donagh was saying to his wife. "I'll be back in about half an hour." He emphasized the *I'll*.

Sorcha's mother had a worried frown between her eyes. "All right, Donagh," she said. "Come back again sometime, Colm," she said. Make an other effort to get on with Donagh, she meant.

"I'll walk ye to the road," said Sorcha, coming out the door after them and taking Colm's hand when they hit the moonlight outside—the hand farthest away from her father. She pressed it with her fingers and held the back of his hand for a moment against her thigh. Just a warm pressure of sympathy. That's a woman for you.

"Don't get drunk now, let ye," she said, standing near the road and watching them away. It



He heard Donagh saying strange things. "Will we stop, Colm?" he was asking. "It wasn't a just thing to do. Let us stop now"

was a very bright night, frosty, with many stars and a fresh breeze that drove clouds like sheep across the face of the moon, so that it seemed to be racing and grinning down at them.

Donagh stood there beside them, implacably, so that they couldn't talk. "Go back into the house now, agirl," he said, "or you'll be catchin' cold."

"Good night," said Sorcha, and turned away.

Like two strangers they walked the half mile to the pub. There was a three-foot space of dislike between them. Donagh was taller than Colm. He walked straighter. He had powerful shoulders. Colm was low but he was strong. Here's a fisherman and a farmer walking the road, he thought, and for all the affinity between them they might as well have been engaged in their respective occupations. He was glad when they left the frosty road for the smuggy yellow light of Kineally's. It was full of men. There was a low counter and a few forms and half barrels on which you could sit. There was the smell of porter and the guttering paraffin lamp and a fug of twist tobacco.

They were greeted. Donagh got a more fulsome greeting than Colm. Donagh insisted on paying for the two pints that were set up for them. Colm swallowed his slowly. Donagh downed his almost in a gulp. Colm ordered two more and paid for them from the small leather purse he carried in his pocket. Then he sat on a barrel and felt miserable and lonely, but never once wished he was a fisherman so that he could have Sorcha in the church without question and so that he would be able to laugh and be great friends with the men in Kineally's pub.

He just sat there and thought, and he didn't know what time it was that he took an interest in the conversation. Donagh was arguing with the Conneelys, and old Kineally behind the counter was backing him up. What was it about? It was about boats. The two B's, Colm had often thought before, they go together—boats and boasting. The Conneelys were two brothers—twins in appearance—tall rangy men with great chests and unshaven chins. They were laughing at Donagh.

"We are the two finest men that ever went into a currach," they were saying. "If you put Fionn MacCumhail and Goll MacMorna and Cucullainn in a boat apart from us, and if you tied the right arm to our sides, we would give them a four-mile lead and beat them home." They laughed, showing great white teeth in their dark faces, and they banged their pint glasses on the counter.

"The two a ye!" Donagh was saying. "I'm an old man. I'm nearly *(Continued on page 40)*

ILLUSTRATED BY C. E. MONROE, JR.

INTERNATIONAL NEWS PHOTO

Vinson (third from right) with the members of his graduating class at Kentucky Normal College, 1908

INTERNATIONAL NEWS PHOTO

As Mrs. Vinson watched, President Truman gave Vinson medal in 1947 for service as War Mobilizer

Former semipro ballplayer and ardent fan, Vinson throws out first pitch in annual Congressional game

INTERNATIONAL NEWS PHOTO

“AVAILABLE

That's what newsmen call our chief justice. The reason: for years, he's been The Man Most Likely to Be Appointed to handle really difficult assignments for the President

BACK in the days of the War between the States, the hamlet of Louisa, Kentucky, had some 250 inhabitants, two of whom were colonels named Vinson. They were both Democrats—a general rule in the Vinson clan—but there the area of agreement ended. Colonel Bill commanded the Union fort back of the town, and his cousin, Colonel Sam, served the local forces of the Confederacy. Each did his duty fully and handsomely, the story goes, but each also saw to it that his men steered clear of the other's farm and kept their hands off the livestock.

This family instinct for practical, quiet, effective compromise has come down to the colonels' grandnephew in a degree amounting almost to genius. The nephew, of course, is Fred M. Vinson, Chief Justice of the United States and, if President Truman steps aside, a possible choice of the Democratic party to succeed him.

Frederick Moore Vinson—he never uses the full name, even in signing official documents—is something of a paradox. A man who has been at the core of American political life for 30 years, 20 of them in the highest reaches of all three branches of government, should ideally be as well known as Hopalong Cassidy. Unfortunately he isn't.

Within a radius of 50 miles from the point where the Big Sandy River of his boyhood days pours into the Ohio at Catlettsburg, Vinson's name is a byword, to be sure. There his nomination for President would be greeted by Republicans as well as Democrats with deep emotional satisfaction and a feeling that Fred, as he likes to be addressed in the Big Sandy Valley, had it coming to him.

The rest of the country, however, would have to learn about the nominee almost as though he were a novice first setting foot on the political scene. Here is a man who left such a mark on Congress that his opponents conceded him to be among the greatest tax authorities they had known in that body; one who was, in turn, an extremely successful Economic Stabilizer, a Cabinet member, an "Assistant President" of the United States in his role as Director of War Mobilization and Reconversion, and presiding justice of the highest court in the land. Yet his face, his political beliefs and his achievements are less familiar to the public than those of half a dozen freshmen senators who might be named offhand.

In a publicity-minded age, this is perhaps more of a tribute to Vinson than a reflection on him. Like many another top political figure, he has had ample opportunity to make headlines if his ambition ever took that turn. But there is simply nothing of the headline-hunter about the serious, plain-speaking, sixty-two-year-old Kentuckian, whose long, massive face, shaggy gray brows, and heavy eye-pouches give him a gently mournful appearance, belying both his enormous energy and his genial nature.

And if he has little of the temperament or color of the prima donna, neither has he the reckless egotism. For all his political sophistication and natural dignity, he has no more "side" than a county judge back in Kentucky. His conversation is sprinkled with rural expressions of ancient vintage, like "sound as old wheat in the mill" and "sure as God made little apples." And it is punctuated by a frequent and astonishingly accurate use of the spittoon. Vinson's forte is not individual brilliance but team play, and it is this that has accounted alike for his steady, inexorable rise and for his relative unfamiliarity to the general public. It is the key to his career.

In Washington, "Available Vinson," as he has been called, is known well enough, and very highly regarded as, in the best sense, a politician's politician. To two Presidents he has been the trouble shooter who could be relied upon to step into a sticky situation and, by a blend of shrewdness, geniality and a talent for stressing areas of agreement, resolve a conflict or at least smooth the ruffled feathers of the antagonists. He knows the art of combining men, one canny veteran of the political wars explained to me, and, like a good coach, he gets the best out of them by offering the most attractive of all bait—public credit.

A glance at the record bears this out. Few associate Vinson's name with the federal Social Security system, now calmly accepted as a permanent aspect of American life, but a red-hot issue when President Roosevelt first asked Congress to cushion the economic hazards of existence. Yet it was Vinson who worked out, in detail, the complicated tax aspects of the plan. Admirers in Ashland, Kentucky, worshipfully point out the building in which he sweated over the tables and statistics that went into the framing of the first Social Security program.

It was Vinson, too, who engineered the measure to save the coal industry from collapse, one of the first of the New Deal acts designed to stabilize wobbling sectors of the economy. Senator Joseph F. Guffey got the plaudits for that one, just as James F. Byrnes, much later, was to get (without seeking it) the lion's share of credit for Vinson's effective job of stabilizing prices at the height of the war.

Using Colleagues to Best Advantage

This may not be the course to pursue in quest of a high Gallup poll rating, but it is the course that built up Vinson's reputation among insiders. And it made him so obviously the choice for delicate assignments that whenever a vacancy of this sort occurred in the turbulent forties, the standard quip among Washington newsmen was, "I wonder how Vinson will like it." That he consciously developed this diplomatic skill is apparent from a tribute he once paid to George Washington. The first President, he said, "insisted upon having about him a group of strong men who differed widely among themselves. It was his superb ability to secure from them a result which no one of them could have effected, yet all were willing to accept." That is the essence of his own approach to politics.

Vinson is one of those fortunate beings who from childhood on never seriously doubt the direction their futures are to take. Born, as he likes to recall, in the Lawrence County jail—actually it was in the jailer's apartment assigned to his father, James, who presided over that institution—he passed his first six years with the courthouse lawn for a playground.

A treat especially cherished by the small boy was the occasional invitation from an indulgent judge to perch himself beside His Honor while a case was being tried. When asked the question that adults have from time immemorial put to little boys, he replied from the first that he would "make a lawyer" when he grew up.

The Vinsons were habitually in politics in and around Louisa. Members of the clan—of English, French and Irish stock—had trekked across the Cumberlands from North Carolina and Virginia in the early days of the century to settle in the tristate region where West Virginia, Kentucky and Ohio come together.

Fred's father had a brief fling at serving the public, as town marshal as well as jailer, but for the

VINSON”

By ROBERT BENDINER

HARRIS & EWING

Liked by politicians of both parties, although little known to voters, Vinson reportedly indicated great reluctance when mentioned as a possible Democratic Presidential candidate

most part he was involved in a struggle to support his wife and four children. By turns he dealt in timber, did construction work for the Norfolk and Western Railway, and operated a livery stable, while Mrs. Vinson rounded out the family income by running a boardinghouse. The family had been dealt a heavy blow by the murder of Fred's grandfather, Lazarus Vinson, at a time when his affairs were somewhat unsettled, and it was further impoverished by James's efforts, ultimately successful, to track down the killers.

From his earliest days at school, Fred was an earnest student, with a remarkable memory and unusual powers of concentration. He is still described as a glutton for work, and his memory is a subject of awed conversation among those who know him. I was told of an occasion when he undertook to introduce to a colleague some 20 persons whom he had met only once before; he reeled off their names without a mistake. As Secretary of the Treasury, he got a letter from a woman who hoped he would remember her son and perhaps find a job for him. Vinson replied that he remembered the son very well as the only one who, in college, some 37 years back, had scored a higher mark in English than himself.

His eldest brother, Robert, a tall, angular man who looks a great deal like the chief justice but is earthier in manner, pictures Fred sprawled out on the floor on his stomach, conning his day's lessons avidly while whistling softly through his teeth. If it was evening he would have the benefit of an oil-burning lamp, for the Vinson house boasted no gas, and electricity was not to appear in Louisa until 1923, the year before Vinson went to Congress.

If it was afternoon, Fred would top off his studies by a session on the sand lots. He was "noisy as hell in a ball game," his brother recalls, and a stickler for the rules. A shortstop in baseball and a quarterback in football, he was a natural leader—scrappy, aggressive and sure of himself.

Young Vinson's aptitude as a student and athlete, plus his unwavering ambition to enter the law, induced his family, in spite of hard times, to send him to Centre College at Danville, after his graduation from Kentucky Normal College in 1908. His elder sister, generally known in Louisa as "Miss Lou," sent him five dollars a week at Centre, and systematic Fred sent back a weekly budget report on how the money was allocated. The family investment paid off from the beginning. Vinson went about his work with such zeal that he wound up at the head of his graduating class, winning the coveted alumni prize. Two years later he had his law degree, with both junior and senior law prizes to boot, not to mention one of the highest scholastic records ever hung up at Centre.

Classmates pretty well agree that he was marked for success. He didn't drink or smoke at the time (he still drinks very little, but for years he has been a chain cigarette smoker), he was popular in spite of a somewhat aggressive manner, and he was a crack ballplayer.

In fact he was so good on the diamond that after leaving Centre he played semiprofessional ball for the Lexington team of the Blue Grass League, and he admits to having flirted for a brief time with the notion of making baseball his career. It is still the major diversion of his life, and with the slightest encouragement he will reel off the batting averages of his favorites or give you the line-up of the Pittsburgh Pirates of 1909. He goes to games as often as the pressure of work will allow, and is said to do a quiet but professional job of grandstand managing for the benefit of those who are with him. Clark Griffith, owner of the Washington Senators, thought Vinson the ideal man to succeed Albert B. (Happy) Chandler as Commissioner of Baseball.

A Chance to Be "City" Attorney

Back in Louisa in 1911, the young lawyer put out his shingle, engaged in a little business on the side, and waited for political opportunity to come knocking on the door. When it came, two years later, it rapped gently. The town council was about to appoint what was somewhat grandiloquently called a city attorney. The "city" had less than 2,000 population and in lieu of salary its attorney drew $5 for each fine collected.

At that, Vinson very nearly lost his first campaign. Some Louisans, especially Robert Dixon, a substantial merchant, thought the young collegian a trifle cocky. They were further irked at his having once supported a Republican for some minor post, and they were determined to bring him down a peg. By some crafty maneuvering and fast talking, however, cousin R. L. Vinson, a local banker, arranged some last-minute switches and saved the day. Fred M. Vinson won his first office by the margin of a single councilmanic vote.

Mr. Dixon, with whose family the Vinsons had been carrying on a mild rivalry, not serious enough to call a feud, calmed down in time, and 10 years later approved the marriage of his daughter Roberta to the future chief justice. She is regarded in Washington, as well as in Kentucky, as a major asset in the Vinson political career. Attractive, witty and reputed to be a better storyteller than her husband, she has smoothed his social way. Their two sons, Fred M., Jr., and James Robert, were born in Louisa a few blocks from their father's prosaic birthplace. Son Fred, now twenty-six, was recently admitted to the bar. Jim, twenty-two, is a student at George Washington University.

Three months in the Army—mostly at Officers' Training School—a short period in private practice, and a few relatively uneventful years as commonwealth attorney rounded out Vinson's pre-Washington career. In 1922 he was elected to Congress, and, except for the term following his lone defeat, in 1928, he has been a fixture in the capital ever since.

Some New Dealers, generally the more ardent kind, describe Vinson as "basically conservative." A national business weekly once summed him up as a New Dealer, but not "rabid." Actually his record in Congress was as strictly New Deal as it could possibly be. He idolized Franklin D. Roosevelt and departed from the President's program on only two occasions. Almost alone, he stood out against F.D.R.'s Economy Bill in 1933, on the ground that it did an injustice to veterans, and in 1936 he favored the soldiers' bonus over the President's opposition. Otherwise he was unvarying in his support of the administration program, including even the much criticized plan to reorganize the court which he was one day to head.

Back home he made no bones about being an all-out New Dealer, thereby losing no popularity in a district of small farmers, coal miners and other beneficiaries of the

(Continued on page 56)

My Brother's Widow

By JOHN D. MacDONALD

I couldn't put off meeting Niki any longer, and maybe I didn't want to. I'd have to meet Mottling, too—the big man who was running my business

The Story: I'm Gevan Dean. Four years ago, I was president of Dean Products in the Midwestern heavy-manufacturing center of Arland. I was going to marry a beautiful girl named Niki. But then I found Niki in the arms of my kid brother, Kendall, and I quit my job and headed for Florida. For four years, I was a kind of glorified beachcomber. I never got over Niki, even after she married Ken.

Then, one day, Lester Fitch, a lawyer for Dean Products, flew to Florida with the news that Ken was dead—shot by a prowler. He also told me some things I hadn't known about operations at the plant. Apparently things were pretty tense. There was to be a meeting at which a new man named Stanley Mottling was to be voted in as president. Mottling had the backing of a Colonel Dolson, the Army Contracting Officer at the plant. The old guard—the men I'd known: Mr. Karch, from the bank; my Uncle Alfred, who owned a block of stock—were backing Walter Granby, a reliable, conservative man. Lester wanted me to sign a proxy authorizing Niki to vote my own stock—and vote it for Mottling.

I didn't like it. I couldn't see what the rush was. Somebody seemed to be trying to pull a fast one. So I flew back to Arland and checked in at the Gardland Hotel. I began to learn some things about Ken. He'd taken to drinking; he'd been troubled and scared. I talked to a girl he'd been close to—Hildy Devereaux, who sang at the hotel—and she told me Ken had been like a man "torn in half."

I went to police headquarters, where Sergeant Portugal let me talk to Walter Shennary, the man they'd arrested for Ken's murder. Shennary swore he was innocent, and told me a car hop named Lita Genelli could prove it.

I learned that some of our best engineers—Tom Garroway, Fitz, Poulson—were gone, because they couldn't get along with Mottling. I made a date to see my old secretary, Joan Perrit. But first, I had a date to see Niki. After four long years . . .

II

AT FOUR thirty, I drove my rented Chevrolet sedan between the gateposts of the house Kendall had built for Niki in the Lime Ridge section, and up the sleek asphalt driveway to a turn-around and parking area near the side entrance.

It was, I imagine, what is called ranch type. A low white frame house in an L shape, with a wide chimney, black shutters, and quite an overhang on the roof. The spring grass had been clipped so close that it looked like a vast, rolling golf green. It seemed to have about two acres of yard, and high cedar hedges isolated the property from the neighbors. The three-car garage was separated from one wing of the house by a breezeway, and beyond the garage was an apartment affair which I imagined belonged to the help.

There were two cars parked there. One was a big fin-tailed job in cruiser gray, and the other was a baby-blue Austin Atlantic convertible with the top down. Both cars had local licenses, and I tried to figure out which one would belong to Niki. It was a little mental game to play to take my mind off the actual moment of meeting her. I had the flutters, as though, after my first shave, I was going on my first date with an honest-to-God girl. I knew I looked presentable enough, but when I got out of the car I felt as though my hands and feet had grown three sizes. Niki has always been able to destroy my poise without even seeming to try.

I pressed the bell at the side door, and a pretty little Negro girl in a white uniform let me in and took my hat, murmuring that I should go straight ahead into the living room. It was a big room and it was empty and very quiet. Low blonde furniture, upholstered in nubbly chocolate; lime-yellow curtains framing a huge window that looked out on the quiet expanse of the lawn. A blonde bar had been wheeled to a convenient corner. I lighted a cigarette and flipped the paper match behind birch logs in the fireplace. I had braced myself for Niki and found an empty room and silence. I wondered wryly if this was a form of psychological warfare—the champ letting the contender wait in the corner of the ring. They had lived in this house, and they had spent evenings in this room. And when the evenings were over, they had gone legally to bed in some other part of the house.

"Gevan!" she said. She had come into the room behind me and I had not heard her. I turned, my mind struck blank and foolish, staring at her as she walked toward me with both hands outstretched.

FOUR years had changed my Niki. The years had softened the tautness of her figure. Her waist seemed slim as ever, yet, under the strapless dress of some bright fabric, her breasts and hips looked heavier, more womanly. Her cheeks were the familiar flat ovals, and her mouth was the same, deeply arched and oddly imperious.

She moved in the same old way, like a very proud and splendid animal. She walked toward me for several dozen eternities and, with all senses acute, I heard the soft whip of the hem of the heavy skirt, and smelled her familiar perfume.

"You've changed your hair," I said.

"Oh, Gevan! Such a sparkling greeting!" When she said my name, I saw the familiar way she said the *v*, her white teeth biting at her underlip, holding the consonant sound just a bit longer than anyone else ever did.

I tried to take one of her hands and shake it in the approved fashion, but her other hand found my wrist, her long fingers wrapping tightly around it, and she stood like that, tall before me, her lips on a level with my chin, that black hair with a sheen like freshly spilled ink.

"It's nice to see you, Niki."

She closed her eyes for just a moment. "It's been too long." She released my hands and turned quickly, a bit awkwardly. I saw then that in her own way she shared my shyness. It made her more believable, made her more like the girl who had stood in the December rain. The girl had betrayed me, and somehow, during four years, I had begun to attribute to her a perfect poise, perfect control. To see her a bit uncertain of her ground, even perhaps a bit afraid of me, destroyed my false image of her, the image that had been a-building for four years.

She turned toward me, and her smile was a bit too controlled. "You're looking incredibly healthy, Gev."

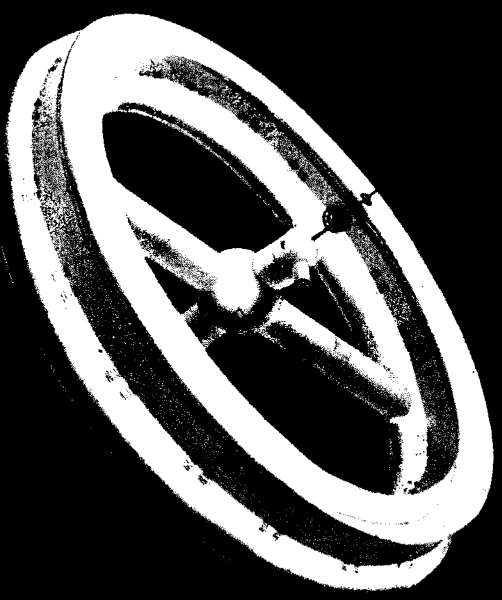
"A beach boy at heart, I guess."

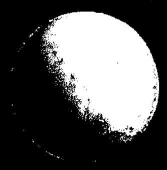
"What can I make you? I'm quite good at Martinis now." It made me

(Continued on page 82)

She stood tall by the fireplace, leaning with one hand thrust against the mantel. A car door chunked. She cocked her head, turned and said, "That must be Stanley"

ILLUSTRATED BY WARD BRACKETT





MAN WILL CONQUER SPACE SOON

Some of the scientists and illustrators who took part in Collier's symposium (left to right): Rolf Klep, Willy Ley, Dr. Heinz Haber, Dr. Wernher von Braun, Dr. Fred L. Whipple, and Chesley Bonestell

What Are We Waiting For?

ON THE following pages Collier's presents what may be one of the most important scientific symposiums ever published by a national magazine. It is the story of the inevitability of man's conquest of space.

What you will read here is not science fiction. It is serious fact. Moreover, it is an urgent warning that the U.S. must immediately embark on a long-range development program to secure for the West "space superiority." If we do not, somebody else will. That somebody else very probably would be the Soviet Union.

The scientists of the Soviet Union, like those of the U.S., have reached the conclusion that it is now possible to establish an artificial satellite or "space station" in which man can live and work far beyond the earth's atmosphere. In the past it has been correctly said that the first nation to do this will control the earth. And it is too much to assume that Moscow's military planners have overlooked the military potentialities of such an instrument.

A ruthless foe established on a space station could actually subjugate the peoples of the world. Sweeping around the earth in a fixed orbit, like a second moon, this man-made island in the heavens could be used as a platform from which to launch guided missiles. Armed with atomic war heads, radar-controlled projectiles could be aimed at any target on the earth's surface with devastating accuracy.

Furthermore, because of their enormous speeds and relatively small size, it would be almost impossible to intercept them. In other words: whoever is the first to build a station in space can prevent any other nation from doing likewise.

We know that the Soviet Union, like the U.S., has an extensive guided missile and rocket program under way. Recently, however, the Soviets intimated that they were investigating the development of huge rockets capable of leaving the earth's atmosphere. One of their top scientists, Dr. M. K. Tikhonravov, a member of the Red Army's Military Academy of Artillery, let it be known that on the basis of Soviet scientific development such rocket ships could be built and, also, that the creation of a space station was not only feasible but definitely probable. Soviet engineers could even now, he declared, calculate precisely the characteristics of such space vehicles; and he added that Soviet developments in this field equaled, if not exceeded, those of the Western World.

We have already learned, to our sorrow, that Soviet scientists and engineers should never be underestimated. They produced the atomic bomb years earlier than was anticipated. Our air superiority over the Korean battlefields is being challenged by their excellent MIG-15 jet fighters which, at certain altitudes, have proved much faster than ours. And while it is not believed that the Soviet Union has actually begun work on a major project to capture space superiority, U.S. scientists point out that the basic knowledge for such a program has been available for the last 20 years.

What is the U.S. doing, if anything, in this field? In December, 1948, the late James Forrestal, then Secretary of Defense, spoke of the existence of an "earth satellite vehicle program." But in the opinion of competent military observers this was little more than a preliminary study. And so far as is known today, little further progress has been made. Collier's feels justified in asking: What are we waiting for?

We have the scientists and the engineers. We enjoy industrial superiority. We have the inventive genius. Why, therefore, have we not embarked on a major space program equivalent to that which was undertaken in developing the atomic bomb? The issue is virtually the same.

The atomic bomb has enabled the U.S. to buy time since the end of World War II. Speaking in Boston in 1949, Winston Churchill put it this way: "Europe would have been communized and London under bombardment some time ago but for the deterrent of the atomic bomb in the hands of the United States." The same could be said for a space station. In the hands of the West a space station, permanently established beyond the atmosphere, would be the greatest hope for peace the world has ever known. No nation could undertake preparations for war without the certain knowledge that it was being observed by the ever-watching eyes aboard the "sentinel in space." It would be the end of Iron Curtains wherever they might be.

Furthermore, the establishment of a space station would mean the dawning of a new era for mankind. For the first time, full exploration of the heavens would be possible, and the great secrets of the universe would be revealed.

When the atomic bomb program—the Manhattan Project—was initiated, nobody really knew whether such a weapon could actually be made. The famous Smyth Report on atomic energy tells us that among the scientists there were many who had grave and fundamental doubts of the success of the undertaking. It was a two-billion-dollar technical gamble.

Such would not be the case with a space program. The claim that huge rocket ships can be built and a space station created still stands unchallenged by any serious scientist. Our engineers can spell out right now (as you will see) the technical specifications for the rocket ship and space station in cut-and-dried figures. And they can detail the design features. All they need is time (about 10 years), money and authority.

Even the cost has been estimated: $4,000,000,000. And when one considers that we have spent nearly $54,000,000,000 on rearmament since the Korean war began, the expenditure of $4,000,000,000 to produce an instrument which would guarantee the peace of the world seems negligible.

Collier's became interested in this whole program last October when members of our editorial staff attended the First Annual Symposium on Space Travel, held at New York's Hayden Planetarium. On the basis of their findings, Collier's invited the top scientists in the field of space research to New York for a series of discussions. The magazine symposium on these pages was born of these round-table sessions.

The scientists who have worked with us over the last five months on this project and whose views are presented on the succeeding pages are:

- **Dr. Wernher von Braun,** Technical Director of the Army Ordnance Guided Missiles Development Group. At forty, he is considered the foremost rocket engineer in the world today. He was brought to this country from Germany by the U.S. government in 1945.
- **Dr. Fred L. Whipple,** Chairman, Department of Astronomy, Harvard University. One of the nation's outstanding astronomers, he has spent most of his forty-five years studying the behavior of meteorites.
- **Dr. Joseph Kaplan,** Professor of Physics at UCLA. One of the nation's top physicists and a world-renowned authority on the upper atmosphere, the forty-nine-year-old scientist was decorated in 1947 for work in connection with B-29 bomber operations.
- **Dr. Heinz Haber,** of the U.S. Air Force's Department of Space Medicine. Author of more than 25 scientific papers since our government brought him to this country from Germany in 1947, Dr. Haber, thirty-eight, is one of a small group of scientists working on the medical aspects of man in space.
- **Willy Ley,** who acted as adviser to Collier's in the preparation of this project. Mr. Ley, forty-six, is perhaps the best-known magazine science writer in the U.S. today. Originally a paleontologist, he was one of the founders of the German Rocket Society in 1927 and was Dr. Wernher von Braun's first tutor in rocket research.

Others who made outstanding contributions to this issue include:

- **Oscar Schachter,** Deputy Director of the UN Legal Department. A recognized authority on international law, this thirty-six-year-old lawyer has frequently given legal advice on matters pertaining to international scientific questions, which lately have included the problems of space travel.
- **Chesley Bonestell,** whose art has appeared in the pages of Collier's many times before. Famous for his astronomical paintings, Mr. Bonestell began his career as an architect, but has spent most of his life painting for magazines and lately for Hollywood.
- Artists **Fred Freeman** and **Rolf Klep.** Both spent many months working in conjunction with the scientists.

For Collier's, associate editor Cornelius Ryan supervised assembly of the material for the symposium. The views expressed by the contributors are necessarily their own and in no way reflect those of the organizations to which they are attached.

Collier's believes that the time has come for Washington to give priority of attention to the matter of space superiority. The rearmament gap between the East and West has been steadily closing. And nothing, in our opinion, should be left undone that might guarantee the peace of the world. It's as simple as that.

THE EDITORS

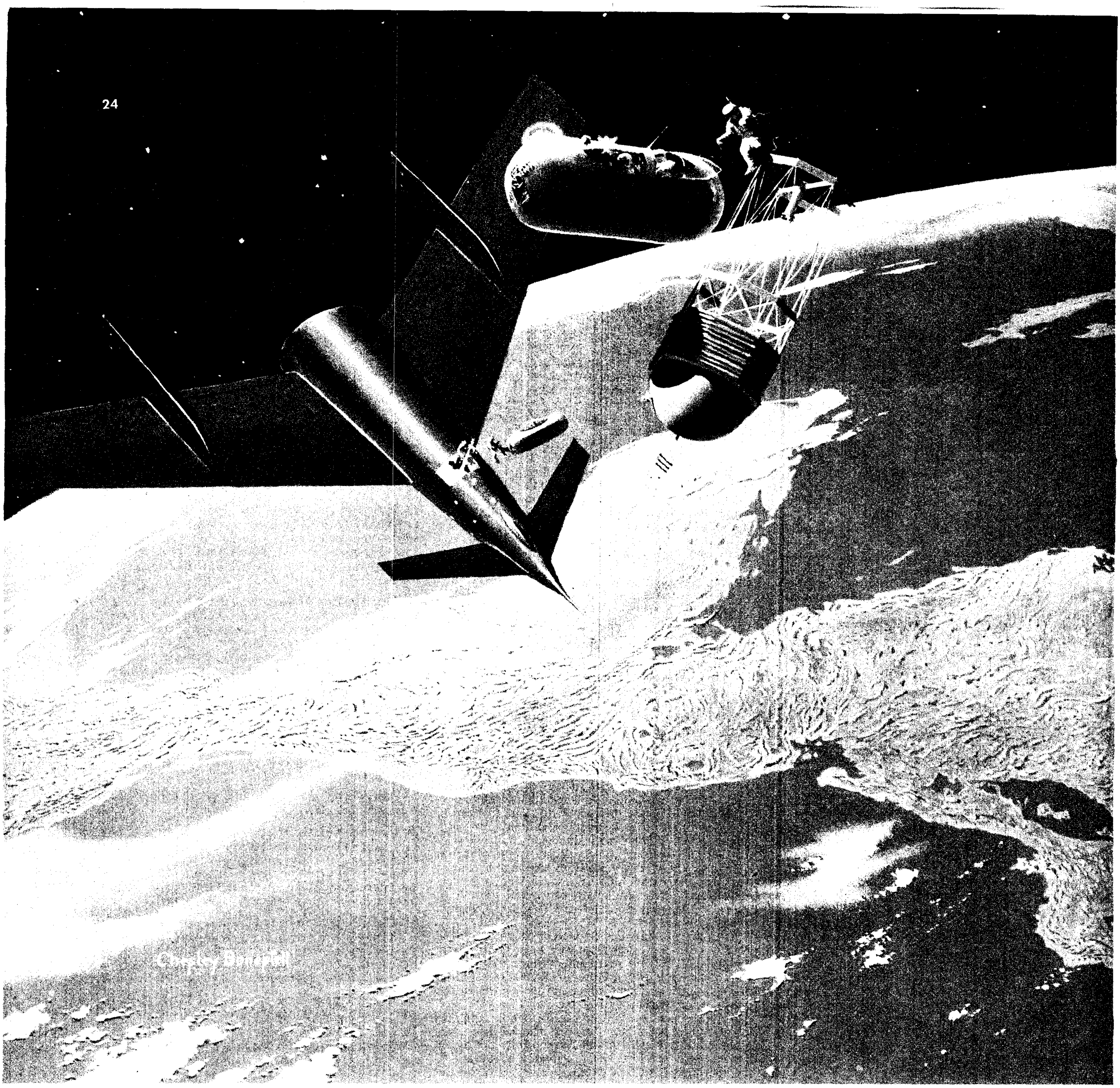
DRAWINGS BY ROLF KLEP

Dr. Joseph Kaplan

Oscar Schachter

Fred Freeman

Cornelius Ryan



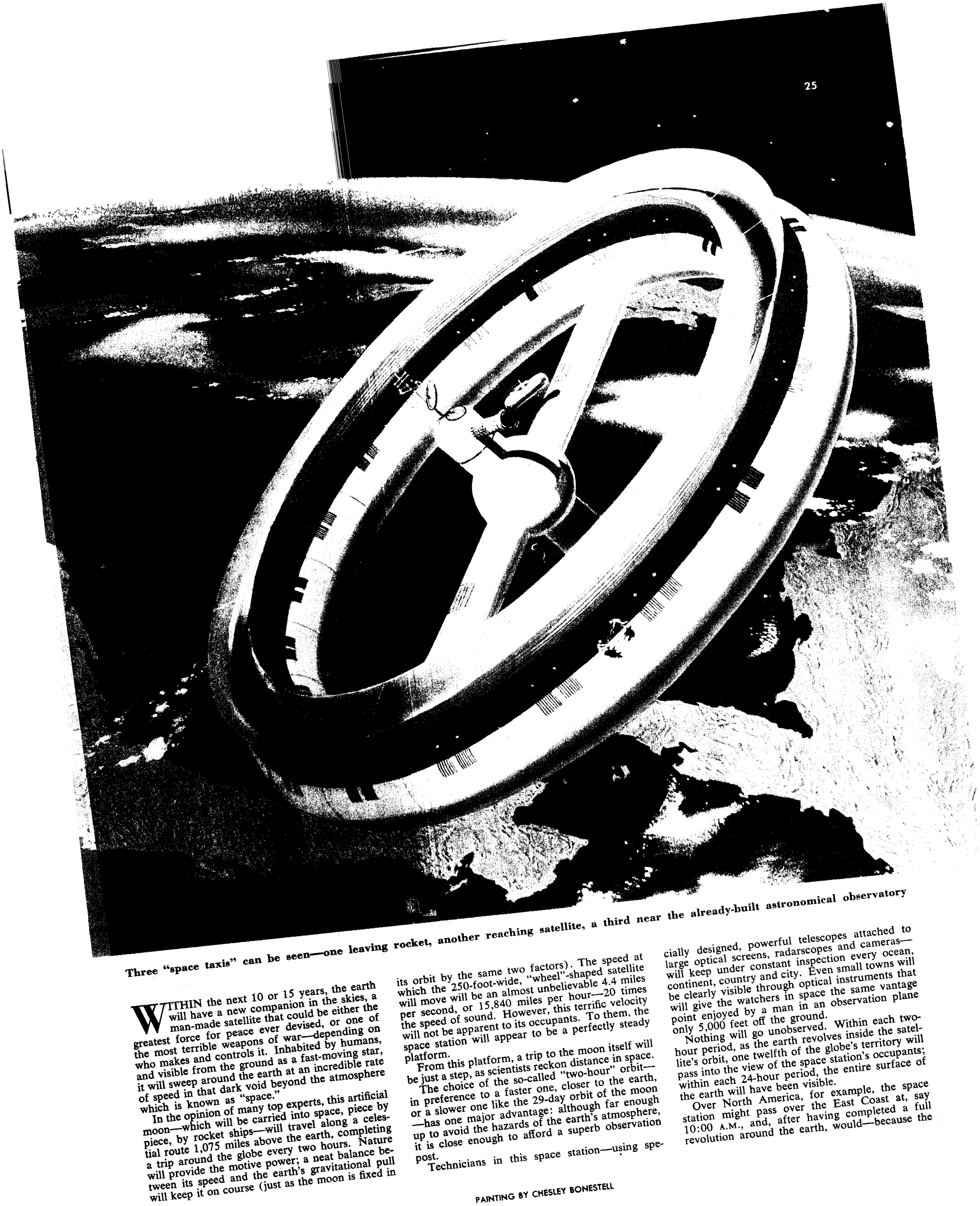
Men and materials arrive in the winged rocket and take "space taxis" to wheel-shaped space station at right. Men wear pressurized suits

CROSSING THE LAST FRONTIER

By DR. WERNHER von BRAUN

Technical Director, Army Ordnance Guided Missiles
Development Group, Huntsville, Alabama

Scientists and engineers now know how to build a station in space that would circle the earth 1,075 miles up. The job would take 10 years, and cost twice as much as the atom bomb. If we do it, we can not only preserve the peace but we can take a long step toward uniting mankind



Three "space taxis" can be seen—one leaving rocket, another reaching satellite, a third near the already-built astronomical observatory

WITHIN the next 10 or 15 years, the earth will have a new companion in the skies, a man-made satellite that could be either the greatest force for peace ever devised, or one of the most terrible weapons of war—depending on who makes and controls it. Inhabited by humans, and visible from the ground as a fast-moving star, it will sweep around the earth at an incredible rate of speed in that dark void beyond the atmosphere which is known as "space."

In the opinion of many top experts, this artificial moon—which will be carried into space, piece by piece, by rocket ships—will travel along a celestial route 1,075 miles above the earth, completing a trip around the globe every two hours. Nature will provide the motive power; a neat balance between its speed and the earth's gravitational pull will keep it on course (just as the moon is fixed in its orbit by the same two factors). The speed at which the 250-foot-wide, "wheel"-shaped satellite will move will be an almost unbelievable 4.4 miles per second, or 15,840 miles per hour—20 times the speed of sound. However, this terrific velocity will not be apparent to its occupants. To them, the space station will appear to be a perfectly steady platform.

From this platform, a trip to the moon itself will be just a step, as scientists reckon distance in space.

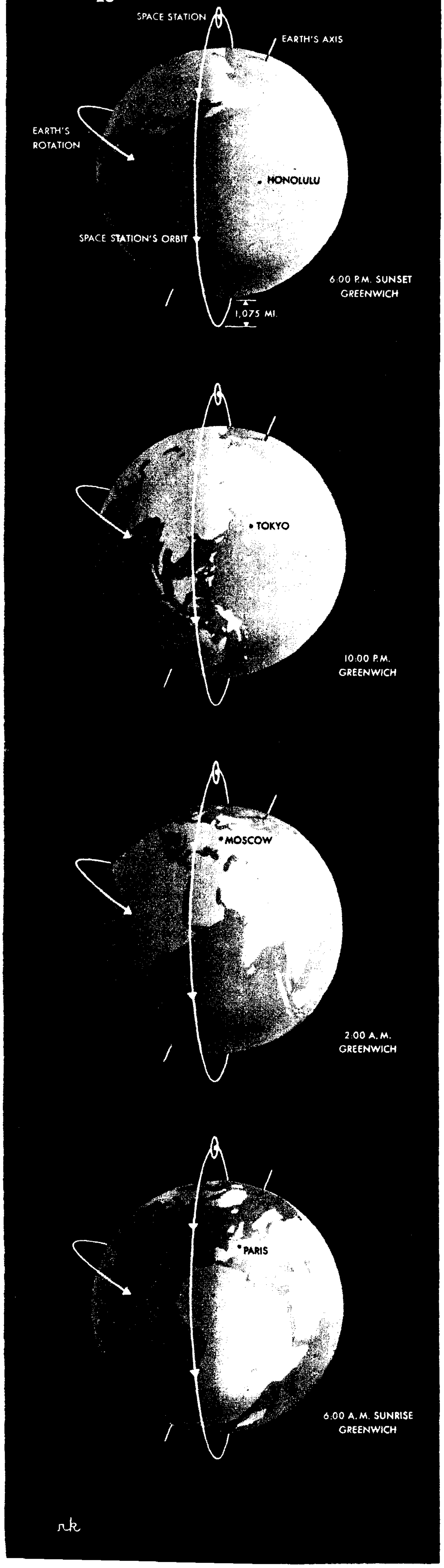
The choice of the so-called "two-hour" orbit—in preference to a faster one, closer to the earth, or a slower one like the 29-day orbit of the moon—has one major advantage: although far enough up to avoid the hazards of the earth's atmosphere, it is close enough to afford a superb observation post.

Technicians in this space station—using specially designed, powerful telescopes attached to large optical screens, radarscopes and cameras—will keep under constant inspection every ocean, continent, country and city. Even small towns will be clearly visible through optical instruments that will give the watchers in space the same vantage point enjoyed by a man in an observation plane only 5,000 feet off the ground.

Nothing will go unobserved. Within each two-hour period, as the earth revolves inside the satellite's orbit, one twelfth of the globe's territory will pass into the view of the space station's occupants; within each 24-hour period, the entire surface of the earth will have been visible.

Over North America, for example, the space station might pass over the East Coast at, say 10:00 A.M., and, after having completed a full revolution around the earth, would—because the

PAINTING BY CHESLEY BONESTELL



earth itself has turned meanwhile—pass over the West Coast two hours later. In the course of that one revolution it would have been north as far as Nome, Alaska, and south almost to Little America on the Antarctic Continent. At 10:00 A.M. the next day, it would appear once again over the East Coast.

Despite the vast territory thus covered, selected spots on the earth could receive pinpoint examination. For example, troop maneuvers, planes being readied on the flight deck of an aircraft carrier, or bombers forming into groups over an airfield will be clearly discernible. Because of the telescopic eyes and cameras of the space station, it will be almost impossible for any nation to hide warlike preparations for any length of time.

* * *

These things we know from high-altitude photographs and astronomical studies: to the naked eye, the earth, more than 1,000 miles below, will appear as a gigantic, glowing globe. It will be an awe-inspiring sight. On the earth's "day" side, the space station's crew will see glaring white patches of overcast reflecting the light of the sun. The continents will stand out in shades of gray and brown bordering the brilliant blue of the seas. North America will look like a great patchwork of brown, gray and green reaching all the way to the snow-covered Rockies. And one polar cap—whichever happens to be enjoying summer at the time—will show as a blinding white, too brilliant to look at with the naked eye.

On the earth's "night" side, the world's cities will be clearly visible as twinkling points of light. Surrounded by the hazy aura of its atmosphere—that great ocean of air in which we live—the earth will be framed by the absolute black of space.

Development of the space station is as inevitable as the rising of the sun; man has already poked his nose into space and he is not likely to pull it back.

On the 14th of September, 1944, a German V-2 rocket, launched from a small island in the Baltic, soared to a peak altitude of 109 miles. Two years later, on December 17, 1946, another V-2, fired at the Army Ordnance's White Sands Proving Ground, New Mexico, reached a height of 114 miles—more than five times the highest altitude ever attained by a meteorological sounding balloon. And on the 24th of February, 1949, a "two-stage rocket" (a small rocket named the "WAC Corporal," fired from the nose of a V-2 acting as carrier or "first stage") soared up to a height of 250 miles—roughly the distance between New York and Washington, but straight up!

These projectiles utilize the same principle of propulsion as the jet airplane. It is based on Isaac Newton's third law of motion, which can be stated this way: for every action there must be a reaction of equal force, but in the opposite direction. A good example is the firing of a bullet from a rifle. When you pull the trigger and the bullet speeds out of the barrel, there is a recoil which slams the rifle butt back against your shoulder. If the rifle were lighter and the explosion of the cartridge more powerful, the gun might go flying over your shoulder for a considerable distance.

This is the way a rocket works. The body of the rocket is like the rifle barrel; the gases ejected from its tail are like the bullet. And the power of a rocket is measured not in horsepower, but in pounds or tons of recoil—called "thrust." Because it depends on the recoil principle, this method of propulsion does not require air.

There is nothing mysterious about making use of this principle as the first step toward making our space station a reality. On the basis of present engineering knowledge, only a determined effort and the money to back it up are required. And if we don't do it, another nation—possibly less peace-minded—will. If we were to begin it immediately, and could keep going at top speed, the whole program would take about 10 years. The estimated cost would be $4,000,000,000—about twice the cost of developing the atomic bomb, but less than one quarter the price of military materials ordered by the Defense Department during the last half of 1951.

Our first need would be a huge rocket capable of carrying a crew and some 30 or 40 tons of cargo into the "two-hour" orbit. This can be built. To understand how, we again use the modern gun as an example.

A shell swiftly attains a certain speed within the gun barrel, then merely coasts through a curved path toward its target. A long-range rocket also requires its initial speed during a comparatively short time, then is carried by momentum.

For example, the V-2 rocket in a 200-mile flight is under power for only 65 seconds, during which it travels 20 miles. At the end of this 65-second period of propulsion it reaches a cut-off speed of 3,600 miles per hour; it coasts the remaining 180 miles. Logically, therefore, if we want to step up the range of a rocket, we must increase its speed during the period of powered flight. If we could step up its cut-off speed to 8,280 miles per hour, it would travel 1,000 miles.

To make a shell hit its target, the gun barrel has to be elevated and pointed in the proper direction. If the barrel were pointed straight up into the sky, the shell would climb to a certain altitude and then simply fall back, landing quite close to the gun. Exactly the same thing happens when a rocket is fired vertically. But to make the rocket reach a distant target after its vertical take-off, it must be tilted after it reaches a certain height above the ground. In rockets capable of carrying a crew and cargo, the tilting would be done by swivel-mounted rocket motors, which, by blasting sideways, would cause the rocket to veer.

* * *

Employing this method, at a cut-off speed of 17,460 miles per hour, a rocket would coast halfway around the globe before striking ground. And by boosting to just a little higher cut-off speed—4.86 miles per second or 17,500 miles per hour—its coasting path, after the power had been cut off, would match the curvature of the earth. The rocket would actually be "falling around the earth," because its speed and the earth's gravitational pull would balance exactly.

It would never fall back to the ground, for it would now be an artificial satellite, circling according to the same laws that govern the moon's path about the earth.

Making it do this would require delicate timing—but when you think of the split-second predictions of the eclipses, you will grant that there can hardly be any branch of natural science more accurate than the one dealing with the motion of heavenly bodies.

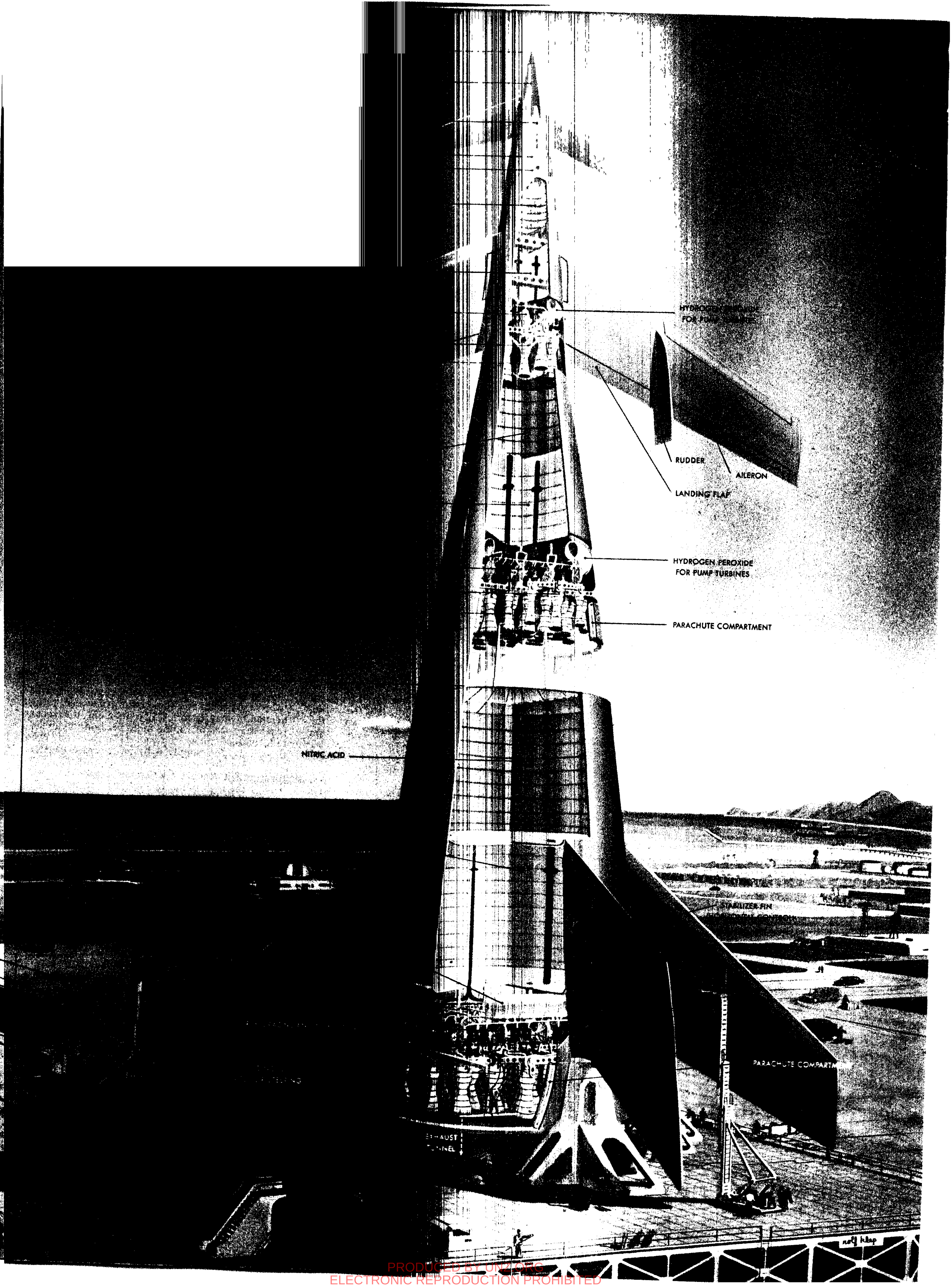
Will it be possible to attain this fantastic speed of 17,500 miles per hour necessary to reach our chosen two-hour orbit? This is almost five times as fast as the V-2. Of course, we can replace the V-2's alcohol and liquid oxygen by more powerful propellants, and even, by improving the design, reduce the rocket's dead weight and thereby boost the speed by some 40 or 50 per cent; but we would still have a long way to go.

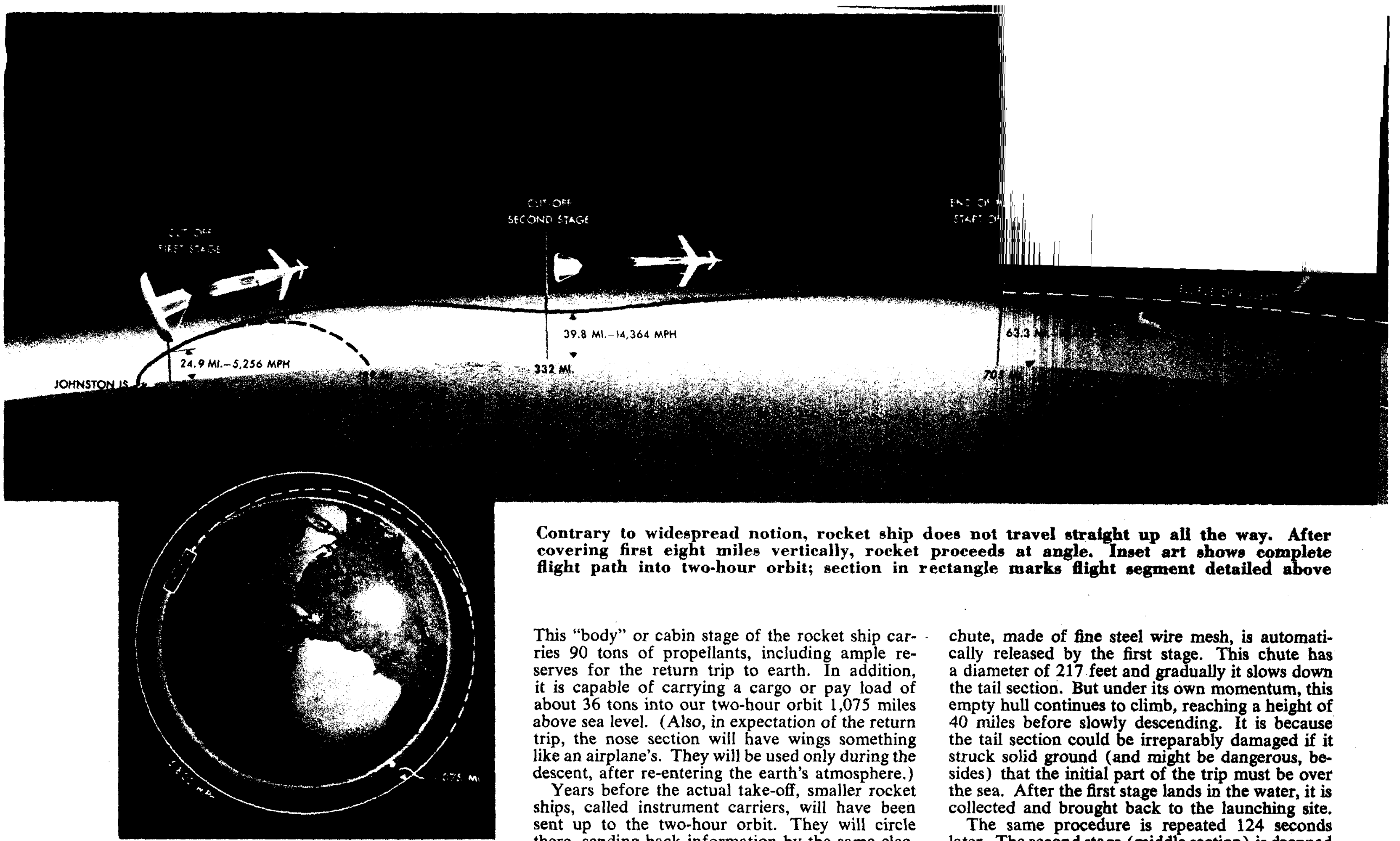
The WAC Corporal, starting from the nose of a V-2 and climbing to 250 miles, has shown us what we must do if we want to step up drastically the speed of a rocket. The WAC started its own rocket motor the moment the V-2 carrying it had reached its maximum speed. It thereby added its own speed to that already achieved by the first stage. As mentioned earlier, such a piggyback arrangement is called a "two-stage rocket"; and by putting a two-stage rocket on

---

Scale drawings at left show how the space station, depicted by the tiny ring at top of each sketch, will circle the earth. Actually, the man-made satellite, in the 1,075-mile orbit selected as the most desirable, will go around the world every two hours. The four drawings indicate, from top to bottom, time intervals of four hours; during each, the satellite will have made two revolutions. Thus, as the globe turns beneath them, occupants of the station will view every spot on the earth during a 24-hour span. At right is Von Braun's rocket ship design. Tall as a 24-story building, it will weigh 7,000 tons and have a 65-foot base

DRAWINGS BY ROLF KLEP


HYDROGEN PEROXIDE
FOR PUMP TURBINES
RUDDER
AILERON
LANDING FLAP
HYDROGEN PEROXIDE
FOR PUMP TURBINES
PARACHUTE COMPARTMENT
NITRIC ACID
STABILIZER FIN
PARACHUTE COMPARTMENT
EXHAUST
TUNNEL
Rolf Klep



Contrary to widespread notion, rocket ship does not travel straight up all the way. After covering first eight miles vertically, rocket proceeds at angle. Inset art shows complete flight path into two-hour orbit; section in rectangle marks flight segment detailed above

ROLF KLEP

another, still larger, booster, we get a three-stage rocket. A three-stage rocket, then, could treble the speed attainable by one rocket stage alone (which would give it enough speed to become a satellite).

In fact, it could do even better. The three-stage rocket may be considered as a rocket with three sets of motors; after the first set has given its utmost, and has expired, it is jettisoned—and so is the second set, in its turn. The third stage, or nose, of the rocket continues on its way, relieved of all that excess weight.

* * *

Besides the loss of the first two stages, other factors make the rocket's journey easier the higher it goes. First, the atmosphere is dense, and tends to hinder the passage of the rocket; once past it, the going is faster. Second, the rocket motors operate more efficiently in the rarefied upper layers of the atmosphere. Third, after passing through the densest portion of the atmosphere, the rocket no longer need climb vertically.

Imagine the size of this huge three-stage rocket ship: it stands 265 feet tall, approximately the height of a 24-story office building. Its base measures 65 feet in diameter. And the over-all weight of this monster rocket ship is 14,000,000 pounds, or 7,000 tons—about the same weight as a light destroyer.

Its three huge power plants are driven by a combination of nitric acid and hydrazine, the latter being a liquid compound of nitrogen and hydrogen, somewhat resembling its better-known cousin, ammonia. These propellants are fed into the rocket motors by means of turbopumps.

Fifty-one rocket motors, pushing with a combined thrust of 14,000 tons, power the first stage (tail section). These motors consume a total of 5,250 tons of propellants in the incredibly short time of 84 seconds. Thus, in less than a minute and a half, the rocket loses 75 per cent of its total original weight!

The second stage (middle section), mounted on top of the first, has 34 rocket motors with a total thrust of 1,750 tons, and burns 770 tons of propellants. It operates for only 124 seconds.

The third and final stage (nose section)—carrying the crew, equipment and pay load—has five rocket motors with a combined thrust of 220 tons. This "body" or cabin stage of the rocket ship carries 90 tons of propellants, including ample reserves for the return trip to earth. In addition, it is capable of carrying a cargo or pay load of about 36 tons into our two-hour orbit 1,075 miles above sea level. (Also, in expectation of the return trip, the nose section will have wings something like an airplane's. They will be used only during the descent, after re-entering the earth's atmosphere.)

Years before the actual take-off, smaller rocket ships, called instrument carriers, will have been sent up to the two-hour orbit. They will circle there, sending back information by the same electronic method already in use with current rockets. Based on the data thus obtained, scientists, astronomers, and engineers, along with experts from the armed forces, will plan the complete development of the huge cargo-carrying rocket ship.

The choice of the take-off site poses another problem. Because of the vast amount of auxiliary equipment—such as fuel storage tanks and machine shops, and other items like radio, radar, astronomical and meteorological stations—an extensive area is required. Furthermore, it is essential, for reasons which will be explained later, that the rocket ship fly over the ocean during the early part of the flight. The tiny U.S. possession known as Johnston Island, in the Pacific, or the Air Force Proving Ground at Cocoa, Florida, are presently considered by the experts to be suitable sites.

At the launching area, the heavy rocket ship is assembled on a great platform. Then the platform is wheeled into place over a tunnel-like "jet deflector" which drains off the fiery gases of the first stage's rocket motors. Finally, with a mighty roar which is heard many miles away, the rocket ship slowly takes off—so slowly, in fact, that in the first second it travels less than 15 feet. Gradually, however, it begins to pick up speed, and 20 seconds later it has disappeared into the clouds.

Because of the terrific acceleration which will be experienced one minute later, the crew—located, of course, in the nose—will be lying flat in "contour" chairs at take-off, facing up. Throughout the whole of its flight to the two-hour orbit, the rocket is under the control of an automatic gyropilot. The timing of its flight and the various maneuvers which take place have to be so precise that only a machine can be trusted to do the job.

After a short interval, the automatic pilot tilts the rocket into a shallow path. By 84 seconds after take-off, when the fuels of the first stage (tail section) are nearly exhausted, the rocket ship is climbing at a gentle angle of 20.5 degrees.

When it reaches an altitude of 24.9 miles it will have a speed of 1.46 miles per second, or 5,256 miles per hour. To enable the upper stages to break away from the tail or first stage, the tail's power has to be throttled down to almost zero. The motors of the second stage now begin to operate, and the connection between the now-useless first stage and the rest of the rocket ship is severed. The tail section drops behind, while the two upper stages of the rocket ship forge ahead.

After the separation, a ring-shaped ribbon parachute, made of fine steel wire mesh, is automatically released by the first stage. This chute has a diameter of 217 feet and gradually it slows down the tail section. But under its own momentum, this empty hull continues to climb, reaching a height of 40 miles before slowly descending. It is because the tail section could be irreparably damaged if it struck solid ground (and might be dangerous, besides) that the initial part of the trip must be over the sea. After the first stage lands in the water, it is collected and brought back to the launching site.

The same procedure is repeated 124 seconds later. The second stage (middle section) is dropped into the ocean. The rocket ship by this time has attained an altitude of 40 miles and is 332 miles from the take-off site. It also has reached a tremendous speed—14,364 miles per hour.

Now the third and last stage—the nose section or cabin-equipped space ship proper—proceeds under the power of its own rocket motors. Just 84 seconds after the dropping of the second stage, the rocket ship, now moving at 18,468 miles per hour, reaches a height of 63.3 miles above the earth.

At this point we must recall the comparison between the rocket and the coasting rifle shell to understand what occurs. The moment the rocket reaches a speed of 18,468 miles per hour, at an altitude of 63.3 miles, the motors are cut off, even though the fuel supply is by no means exhausted. The rocket ship continues on an unpowered trajectory until it reaches 1,075 miles above the earth. This is the high point, or "apogee"; in this case it is exactly halfway around the globe from the cut-off place. The rocket ship is now in the two-hour orbit where we intend to build the space station.

* * *

Just one more maneuver has to be performed, however. In coasting up from 63.3 miles to 1,075 miles, the rocket ship has been slowed by the earth's gravitational pull to 14,770 miles per hour. This is not sufficient to keep the ship in our chosen orbit. If we do not increase the speed, the craft will swing back halfway around the earth to the 63.3-mile altitude. Then it would continue on past the earth until, as it curves around to the other side of the globe, it would be back at the same apogee, at the 1,075-mile altitude.

The rocket ship would already be a satellite and behave like a second moon in the heavens, swinging on its elliptical path over and over for a long time. One might well ask: Why not be satisfied with this? The reason is that part of this particular orbit is in the atmosphere at only 63.3 miles. And while the air resistance there is very low, in time it would cause the rocket ship to fall back to earth.

Our chosen two-hour orbit is one which, at *all* points, is exactly 1,075 miles above the earth. The last maneuver, which stabilizes the rocket ship in this orbit, is accomplished by turning on the rocket motors for about 15 seconds. The velocity is thus increased by 1,030 miles per hour, bringing the total speed to 15,800 miles per hour. This is the speed necessary for remaining in the orbit permanently. We have reached our goal.

An extraordinary fact about the flight from the earth is this: it has taken only 56 minutes, during which the rocket ship was powered for only five minutes.

From our vantage point, 1,075 miles up, the earth, to the rocket ship's crew, appears to be rotating once every two hours. This apparent fast spin of the globe is the only indication of the tremendous speed at which the rocket ship is moving. The earth, of course, still requires a full 24 hours to complete one revolution on its axis, but the rocket ship is making 12 revolutions around the earth during the time the earth makes one.

We now begin to unload the 36 tons of cargo which we have carried up with us. But how and where shall we unload the material? There is nothing but the blackness of empty space all around us.

We simply dump it out of the ship. For the cargo, too, has become a satellite! So have the crew members. Wearing grotesque-looking pressurized suits and carrying oxygen for breathing, they can now leave the rocket ship and float about unsupported.

Just as a man on the ground is not conscious of the fact that he is moving with the earth around the sun at the rate of 66,600 miles per hour, so the men in the space ship are not aware of the fantastic speed with which they are going around the earth. Unlike men on the ground, however, the men in space do not experience any gravitational pull. If one of them, while working, should drift off into space, it will be far less serious than slipping off a scaffold. Drifting off merely means that the man has acquired a very slight speed in an unforeseen direction.

He can stop himself in the same manner in which any speed is increased or stopped in space—by reaction. He might do this, theoretically, by firing a revolver in the direction of his inadvertent movement. But in actual practice the suit will be equipped with a small rocket motor. He could also propel himself by squirting some compressed oxygen from a tank on his back. It is highly probable, however, that each crew member will have a safety line securing him to the rocket as he works. The tools he uses will also be secured to him by lines; otherwise they might float away into space.

* * *

The spacemen—for that is what the crew members now are—will begin sorting the equipment brought up. Floating in strange positions among structural units and machinery, their work will proceed in absolute silence, for there is no air to carry sound. Only when two people are working on the same piece of material, both actually touching it, will one be able to hear the noises made by another, because sound is conducted by most materials. They will, however, be able to converse with built-in "walkie-talkie" radio equipment. The cargo moves easily; there is no weight, and no friction. To push it, our crew member need only turn on his rocket motor (if he shoved a heavy piece of equipment without rocket power, he might fly backward!).

Obviously the pay load of our rocket ship—though equivalent to that of two huge Super Constellations—will not be sufficient to begin construction of the huge, three-decked, 250-foot-wide space station. Many more loads will be required. Other rocket ships, all timed to arrive at the same point in a continuous procession as the work progresses, will carry up the remainder of the prefabricated satellite. This will be an expensive proposition. Each rocket trip will cost more than half a million dollars *for propellants alone.* Thus, weight and shipping space limitations will greatly affect the specifications of a space station.

In at least one design, the station consists of 20 sections made of flexible nylon-and-plastic fabric. Each of these sections is an independent unit which later, after assembly into a closed ring, will provide compartmentation similar to that found in submarines. To save shipping space, these sections will be carried to the orbit in a collapsed condition. After the "wheel" has been put together and sealed, it will then be inflated like an automobile tire to slightly less than normal atmospheric pressure. This pressure will not only provide a breathable atmosphere within the ring but will give the whole structure its necessary rigidity. The atmosphere will, of course, have to be renewed as the men inside exhaust it.

On solid earth, most of our daily activities are conditioned by gravity. We put something on a table and it stays there, because the earth attracts it, pulling it against the table. When we pour a glass of milk, gravity draws it out of the bottle and we catch the falling liquid in a glass. In space, however, everything is weightless. And this includes man.

This odd condition in no way spells danger, at least for a limited period of time. We experience weightlessness for short periods when we jump from a diving board into a pool. To be sure, there are some medical men who are concerned at the prospect of permanent weightlessness—not because of any known danger, but because of the unknown possibilities. Most experts discount these nameless fears.

However, there can be no doubt that permanent weightlessness might often prove inconvenient. What we require, therefore, is a "synthetic" gravity within the space station. And we can produce centrifugal force—which acts as a substitute for gravity—by making the "wheel" slowly spin about its hub (a part of which can be made stationary).

To the space station proper, we attach a tiny rocket motor which can produce enough power to rotate the satellite. Since *(Continued on page 72)*

PAINTING BY CHESLEY BONESTELL

Skin of rocket ship's third stage (shown over Cape Town, South Africa) glows red hot on return trip. Phenomenon does not occur during ascent

A self-contained community, this outpost in the sky will provide all of man's needs, from air conditioning to artificial gravity

When man first takes up residence in space, it will be within the spinning hull of a wheel-shaped structure, rotating around the earth much as the moon does. Life will be cramped and complicated for space dwellers; they will exist under conditions comparable to those on a modern submarine. This painting, which is scientifically accurate, shows how the spacemen will live and work inside their whirling station.

The wheel's movement around its hub will provide centrifugal force as a substitute for gravity in weightless space; however, this "synthetic gravity" will not be equal in all parts of the station, since the amount of spin will decrease toward the center. Thus, the topmost of the three decks (the one on the inside of the wheel) will have the least gravity, and the hub itself will have virtually none.

At the extreme left of the painting (below), on the top deck, is the communications center, which maintains radio contact with the earth, with rocket ships in space, and with the space taxis that carry men from rocket ship to space station. Below the communications room, meteorologists chart the weather for the entire earth; on the lowest deck at extreme left is a bunk room.

Next door to the communications and weather sections is the earth observation center, occupying two decks. On the top deck is a large movable map on which "ground zero," the territory the station is passing over at the moment, is spotted. Immediately below the map is a telescopic enlargement of ground zero. Under this, on the center deck, are additional telescopic screens showing other territory (figures over each screen refer to the amount of territory covered by the picture, not to the apparent distance away from the scene).

The electronic computer on the top deck, between the earth observation and celestial observation centers, solves complicated mathematical problems. The large screen in the celestial observation room enables astronomers to study enlarged photographs taken from the satellite's tiny sister station, the observatory. The bottom deck contains a photographic darkroom and part of the system which recovers and purifies waste water.

The next section over is devoted to the handling of cargo. Material arrives from the hub by elevator, and is distributed from the loading room in accordance with decisions made by the weight control center, which is charged with preserving the station's balance. Fuel storage and air-conditioning return ducts are located under this area.

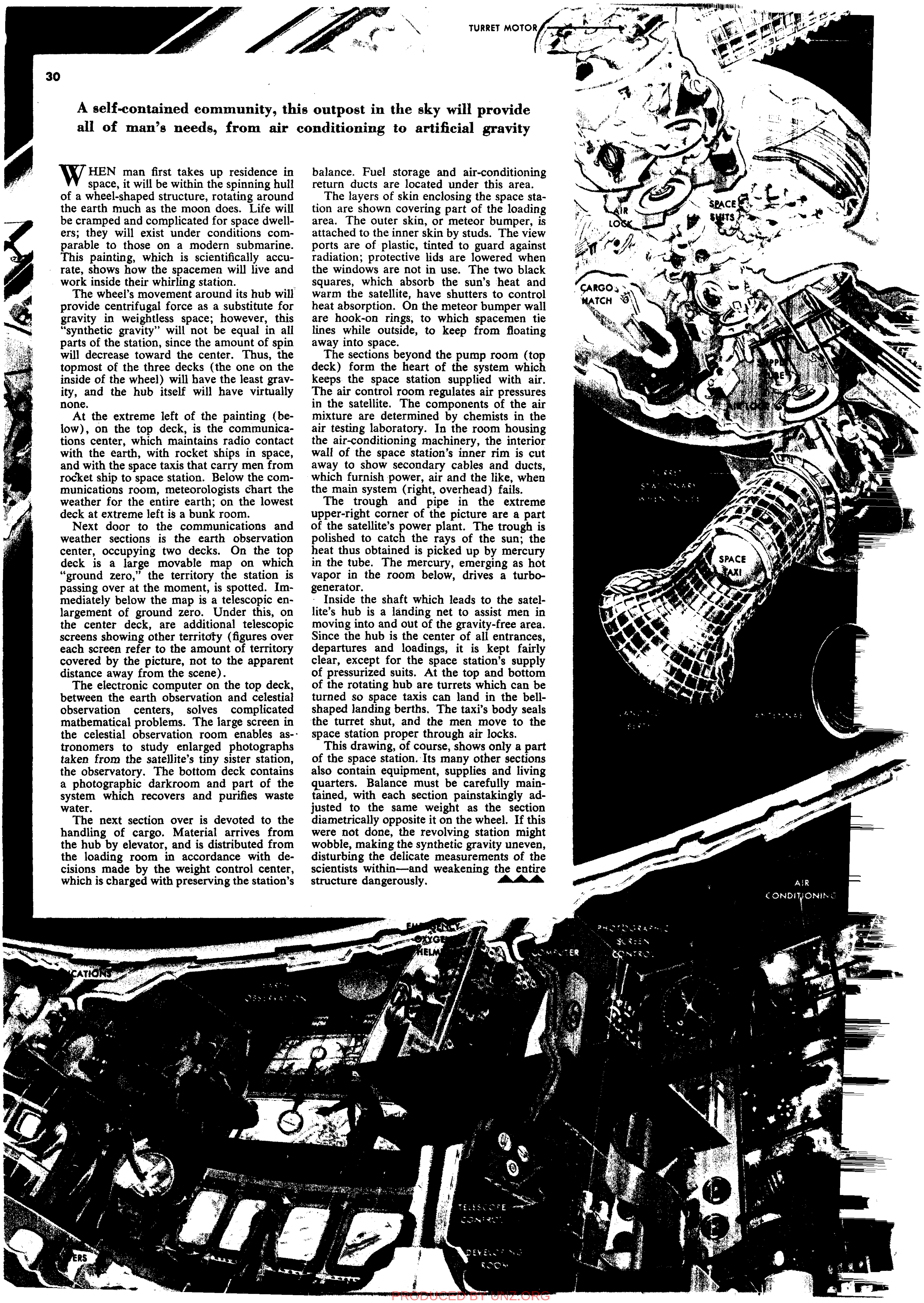
The layers of skin enclosing the space station are shown covering part of the loading area. The outer skin, or meteor bumper, is attached to the inner skin by studs. The view ports are of plastic, tinted to guard against radiation; protective lids are lowered when the windows are not in use. The two black squares, which absorb the sun's heat and warm the satellite, have shutters to control heat absorption. On the meteor bumper wall are hook-on rings, to which spacemen tie lines while outside, to keep from floating away into space.

The sections beyond the pump room (top deck) form the heart of the system which keeps the space station supplied with air. The air control room regulates air pressures in the satellite. The components of the air mixture are determined by chemists in the air testing laboratory. In the room housing the air-conditioning machinery, the interior wall of the space station's inner rim is cut away to show secondary cables and ducts, which furnish power, air and the like, when the main system (right, overhead) fails.

The trough and pipe in the extreme upper-right corner of the picture are a part of the satellite's power plant. The trough is polished to catch the rays of the sun; the heat thus obtained is picked up by mercury in the tube. The mercury, emerging as hot vapor in the room below, drives a turbo-generator.

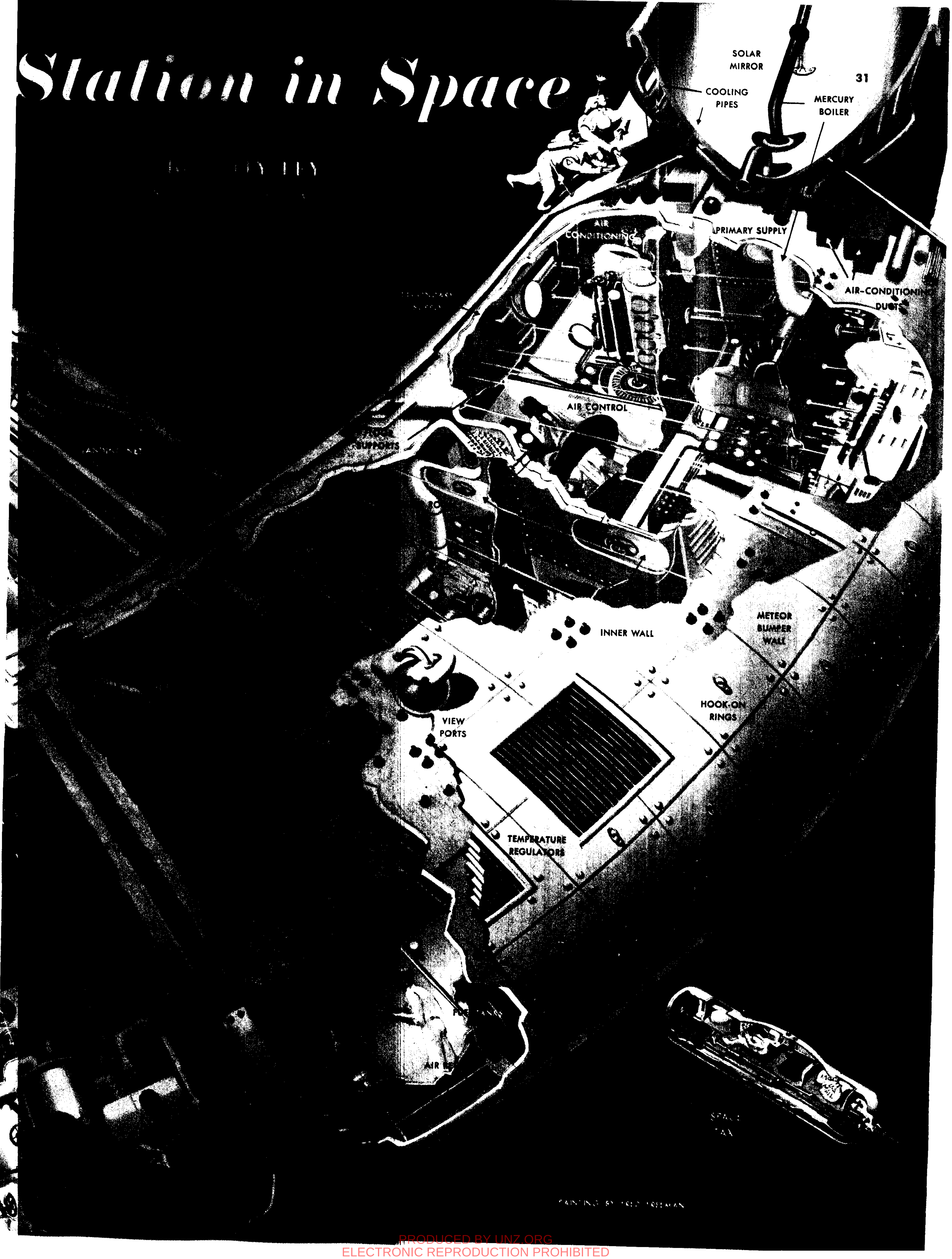
Inside the shaft which leads to the satellite's hub is a landing net to assist men in moving into and out of the gravity-free area. Since the hub is the center of all entrances, departures and loadings, it is kept fairly clear, except for the space station's supply of pressurized suits. At the top and bottom of the rotating hub are turrets which can be turned so space taxis can land in the bell-shaped landing berths. The taxi's body seals the turret shut, and the men move to the space station proper through air locks.

This drawing, of course, shows only a part of the space station. Its many other sections also contain equipment, supplies and living quarters. Balance must be carefully maintained, with each section painstakingly adjusted to the same weight as the section diametrically opposite it on the wheel. If this were not done, the revolving station might wobble, making the synthetic gravity uneven, disturbing the delicate measurements of the scientists within—and weakening the entire structure dangerously. ▲▲▲



Station in Space

By WILLY LEY


SOLAR MIRROR
COOLING PIPES
MERCURY BOILER
AIR CONDITIONING
PRIMARY SUPPLY
AIR-CONDITIONING DUCTS
AIR CONTROL
SUPPORTS
INNER WALL
METEOR BUMPER WALL
HOOK-ON RINGS
VIEW PORTS
TEMPERATURE REGULATORS
FUEL TANKS
AIR LOCK
SPACE TAXI

PAINTING BY FRED FREEMAN

The Heavens Open

By DR. FRED L. WHIPPLE

Chairman, Department of Astronomy, Harvard University

Once above the atmosphere which blindfolds our scientists now, a revolution will take place in astronomy. Man will, for the first time, get a good, clear look at the universe

IN MANY respects, today's astronomers might as well be blindfolded in a deep, dark coal mine. The earth's atmosphere, even on a perfectly clear day or night, blankets out many of the secrets of the universe. Details of the surface of the moon, planets and star groups disappear in a dancing blur because the atmosphere is never really quiet. The extremely significant far ultraviolet light, the X rays and gamma rays of space are indiscernible because the atmosphere permits free passage only to the visible light rays.

The establishment of a telescope and observatory in space will end this era of blindness. It will be as revolutionary to science as the invention of the telescope itself.

The sun, for example, photographed from the space station by X rays, will be an amazing sight. Astronomers have deduced that it very probably will look like a mottled, irregular sunflower. And what we now see as the sun's disk will, in all likelihood, prove to be only the central core of a large fuzzy-looking ball. It will be covered with bright specks and pulsing streaks, while the usually invisible corona will show up as the main source of light.

Similarly, familiar star constellations may look very strange when photographed from the space station or space observatory with plates sensitive to all the wave lengths of ultraviolet light.

Stars send ultraviolet as well as visible light. Some, however, radiate mostly ultraviolet. These appear weak to the eye, but will be exceedingly bright to the special camera. Those which send out very little ultraviolet light will hardly show on the special photographic plates. The Milky Way itself might be markedly changed—I wish I knew just how.

What is even more fascinating to the astronomer than acquiring "full vision" is the fact that space travel will permit him to change position in space. For instance, there is our moon, relatively near and under observation since the first telescope was built. But the moon always turns the same side toward the earth, and almost one half of its total surface has never been seen by man.

What are the first astronomers who make a round-the-moon journey going to see on that completely unknown portion? Will they find mountains, plains and craters like those we see on the side visible to us now? Or will they find a plain, serrated with jagged canyons—or a landscape unmarked by anything? And were the moon's gigantic craters formed by some type of volcanic action or are they a result of collision with flying mountains from space? Is there really a thick layer of dust covering the moon's surface? Observation from a space ship will give us conclusive answers to all these questions.

The astronomers in the space station will also have a very practical job awaiting them. When the sun becomes temperamental, as it frequently does, it develops gigantic storms on its surface, emitting excessive amounts of ultraviolet light and X rays, and even ejecting high-speed atoms. Although they cannot be observed directly, these emanations knock out our long-range radio communications, cause transcontinental teletypes to go berserk and sometimes even burn out long-range telephone and power cables.

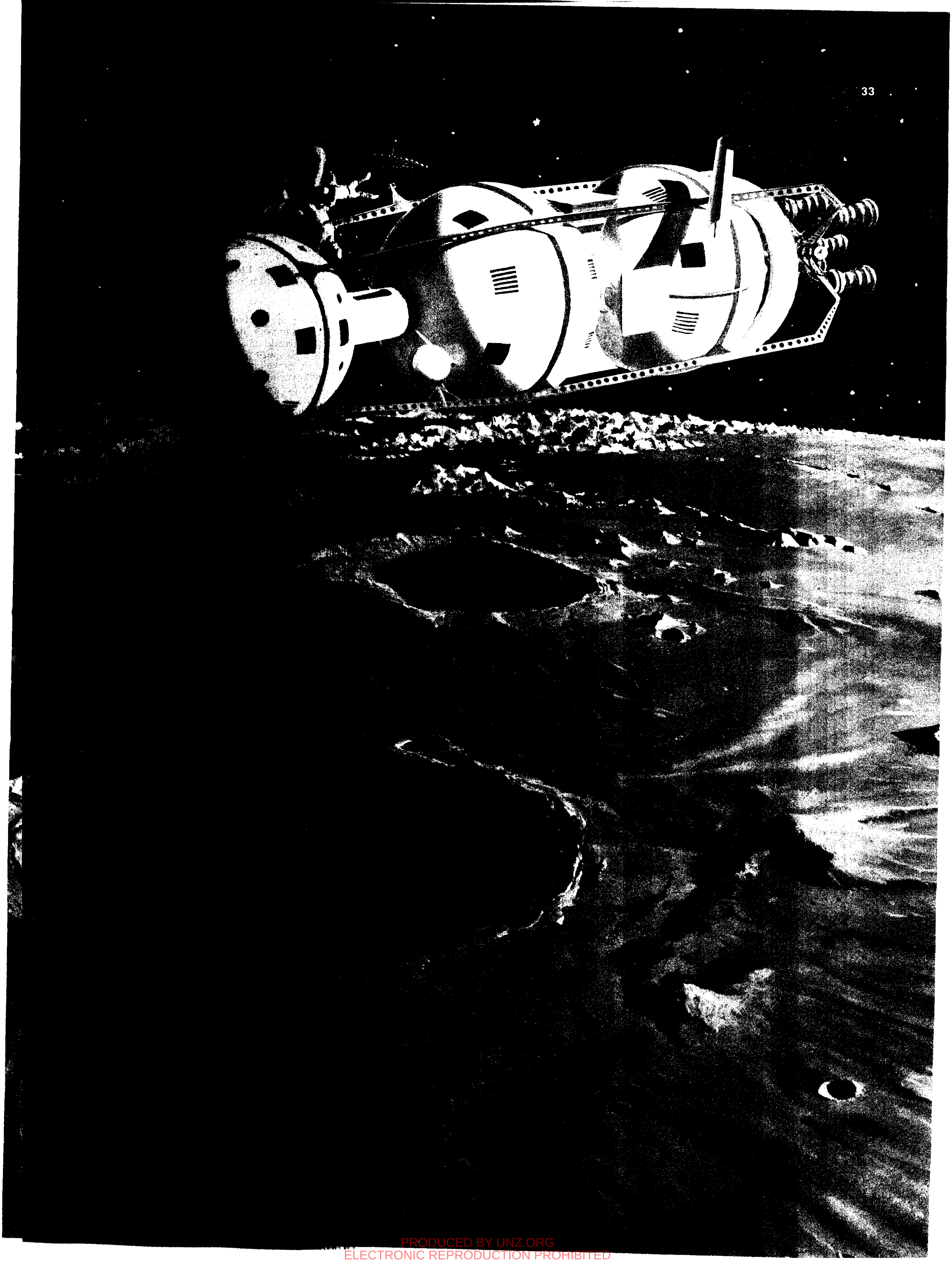
There is little doubt that our space station astronomers, maintaining a 24-hour surveillance of the sun and all its radiations, not only will find the explanation for these solar storms but will learn to predict them in advance. Preparations could then be made to protect our electronic equipment.

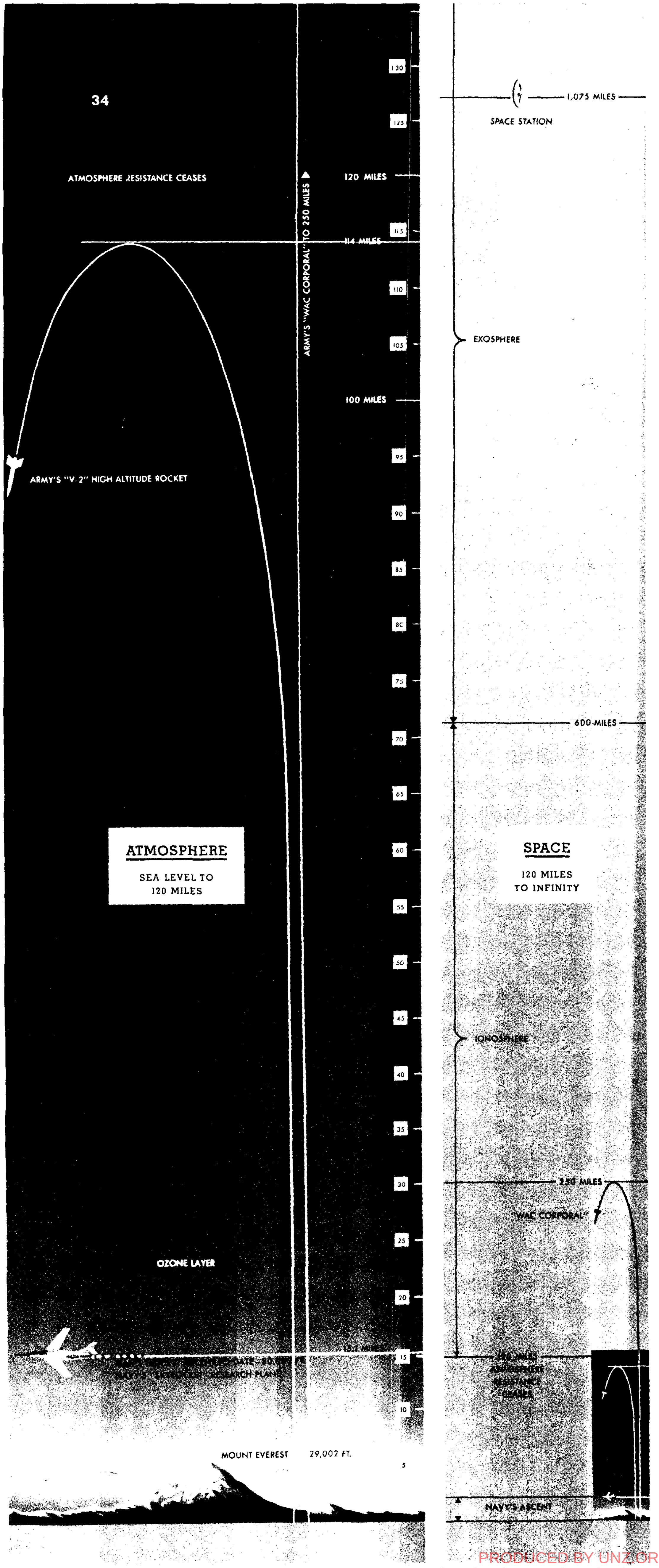
I can mention only a few more projects which will fascinate the astronomers of space. Among them: (1) the mysteries of the superhot and exploding stars; (2) the composition of the atmospheres of other planets, such as Mars; (3) details of the surfaces of other planets (which may offer evidence concerning possible life there); (4) analysis of the great dust and gas clouds of the Milky Way, where stars are born; (5) mapping of similar regions in other great galaxies comprising billions of stars. They should discover important clues regarding the expansion of the universe, its dimensions and its nature.

The astronomer will no longer be limited to seeing as "through a glass, darkly." The universe will spread out clearly before him. ▲▲▲

Specially designed round-the-moon ship hovers 200 miles above lunar surface as space scientists take close-up photographs. One-way journey from station in space will take five days to cover 239,000 miles. Never-seen face of the moon is to right. Trip will have to be timed so that sun lights hidden side

PAINTING BY CHESLEY BONESTELL





This Side of Infinity

By Dr. JOSEPH KAPLAN

Professor of Physics, Institute of Geophysics, University of California

WE ARE living at the bottom of a great envelope of air which provides us with life-giving oxygen and water, protects us from the harmful effects of the sun's ultraviolet rays, and shields us from the high-speed projectiles called meteorites. Without this envelope, all life, as we know it, would cease.

This protective covering around the earth is the atmosphere, a mixture of about 20 per cent oxygen, almost 80 per cent nitrogen, and minute quantities of other gases. The mixture is thickest at sea level; with increasing altitude, it becomes thinner and thinner until eventually, for all practical purposes, we may say that it disappears. At 10,000 feet, the air is so thin that man usually has difficulty breathing. Over 20,000 feet, death awaits anyone not carrying oxygen. Over the years, scientists have found it convenient to divide the atmosphere into levels, as shown in the accompanying charts. These layers have distinctive properties which make them of special interest to particular branches of science. The first layer, from sea level to an altitude of eight miles, is of primary scientific importance to meteorologists, for it is here that all weather occurs. In 1898, the French meteorologist, Léon P. Teisserenc de Bort, named it the troposphere.

Until recent times, aeronautical engineers also devoted their main attention to the troposphere. Then, with the development of airplanes that could climb to an altitude of 60,000 feet, they began to show interest in the next level, the stratosphere (also named by De Bort), which extends from eight to 60 miles up. Extremely powerful winds have been found in this layer of the atmosphere, moving at the entirely unexpected rate of 200 miles per hour.

Here, too, was found a section 10 miles thick which attracted the special attention of physicists. For this layer contains an unusually high percentage of ozone (another form of oxygen) produced by the interaction of the sun's ultraviolet rays and oxygen. It is this ozone layer, which they themselves create, that prevents the ultraviolet rays from striking earth and killing all life.

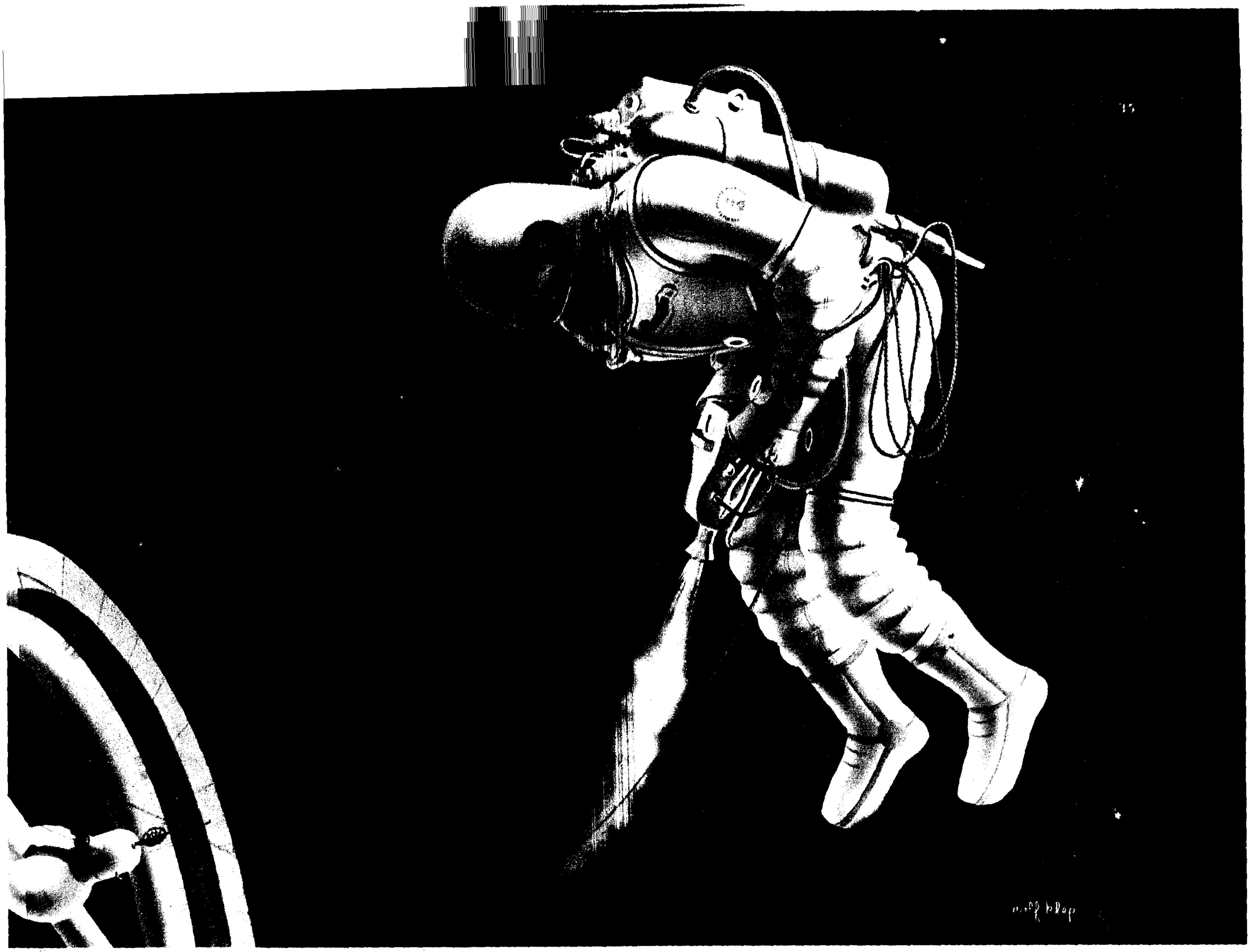
The thermometer, which shows widely varying temperatures on earth, suddenly stabilizes at the lower edge of the stratosphere, reading a constant 67 degrees below zero. Not long ago, it was believed the whole stratosphere remained at this temperature. Recently, however, a warm belt was discovered at 32 miles; the temperature here is a steady 170 degrees *above* zero. Higher up, it sharply decreases again.

The layer from 60 miles to 120 miles is called the ionosphere, of great importance to radio engineers because what little air exists there is electrically charged. This region is subdivided into several strata, each reflecting certain high-frequency radio waves back to earth. It is this charged air which makes it possible to send short-wave radio communications over long distances. The only radio waves which can penetrate this layer without being reflected back to earth are the ultra-short waves used for radar. Their ability to get through was proved conclusively in 1946, when the U.S. Army Signal Corps successfully made radar contact with the moon.

Also in the ionosphere we find the strange, pulsating glows of the *aurora borealis* and the *aurora australis* (these phenomena probably would be invisible to anyone passing through them on a flight to space). Because the auroras have traditionally been considered in the domain of the astronomers, members of this branch of science are, like radio experts, interested in the ionosphere.

Above the ionosphere, the air becomes so thin that it no longer serves any function. Scattered single particles of air (molecules and atoms) have been found here, and scientists have noted this fact by giving the area above the ionosphere a name of its own, the exosphere. But the particles are so rare that it is impossible to establish the limits of this layer. There are so few of them that at the 250-mile record altitude reached by the Army's "WAC Corporal" rocket, there is less air than in the best vacuum tube obtainable on earth. (See drawings. Reduced figure, right, shows "WAC Corporal's" course.)

It is at the boundary between the ionosphere and the exosphere that the upper limit of the atmosphere—and the lower limit of space—has been arbitrarily established by the two groups of scientists most interested: the astronomers and the rocket engineers. Their decision was based on the fact that both are concerned with the friction produced by air—the rocketmen because it creates a difficult barrier for rocket ships to cross; the astronomers because meteorites, which are in their scientific province, ignite upon striking fairly dense air. At 120 miles, air friction becomes, for the purposes of both groups, negligible. There space begins. ▲▲▲



Tied to space station so he won't float away, spaceman wears radio and oxygen supply on back of pressurized suit, gets propulsion from portable rocket motor. Actual helmet will have dark glass to ward off dangerous ultraviolet rays; artist made it light to show face

CAN WE SURVIVE IN SPACE?

By DR. HEINZ HABER

Department of Space Medicine, United States Air Force School of Aviation Medicine, Randolph Field, Texas

A multitude of problems will beset us, says this authority, but nothing we can't lick

ALL day long, the frail little man attending the forum had listened to the engineers and scientists discuss the conquest of the heavens with huge rocket ships and space stations. Now he had a question.

"Mr. Chairman," he said, "you fellows seem to have worked out all the details. You know how your rocket ships should be designed, you even have plans on paper for machines to reach the moon and other planets. But as an ordinary layman who knows little about these matters, I would like to ask this one question:

"Who is going to design the crew?"

The questioner had put his finger on the greatest difficulty facing the engineers, scientists and doctors in reaching space—man himself.

If the jet plane, guided missile or rocket ship is not perfect, the engineer can redesign the machine over and over until all the kinks have been ironed out. He has a great variety of materials and devices at his disposal. He may eventually succeed in developing a flawless machine. The same cannot be said for man. He is the most important link, and yet the weakest one, in any attempt to conquer space. And he cannot be redesigned.

True, man can adapt himself to extraordinary conditions—he manages to survive anywhere on the face of this globe. But what will happen to him if he ventures into the alien environment known as space—the void beyond the atmosphere?

There is no oxygen for breathing.

The lack of atmospheric pressure can cause his blood to boil.

Dangerous radiation (ultraviolet rays) from the sun hits him with full force and can broil him within minutes.

Atomic bullets, called cosmic rays, plow through his body.

He will be weightless, floating helplessly about, with no up or down.

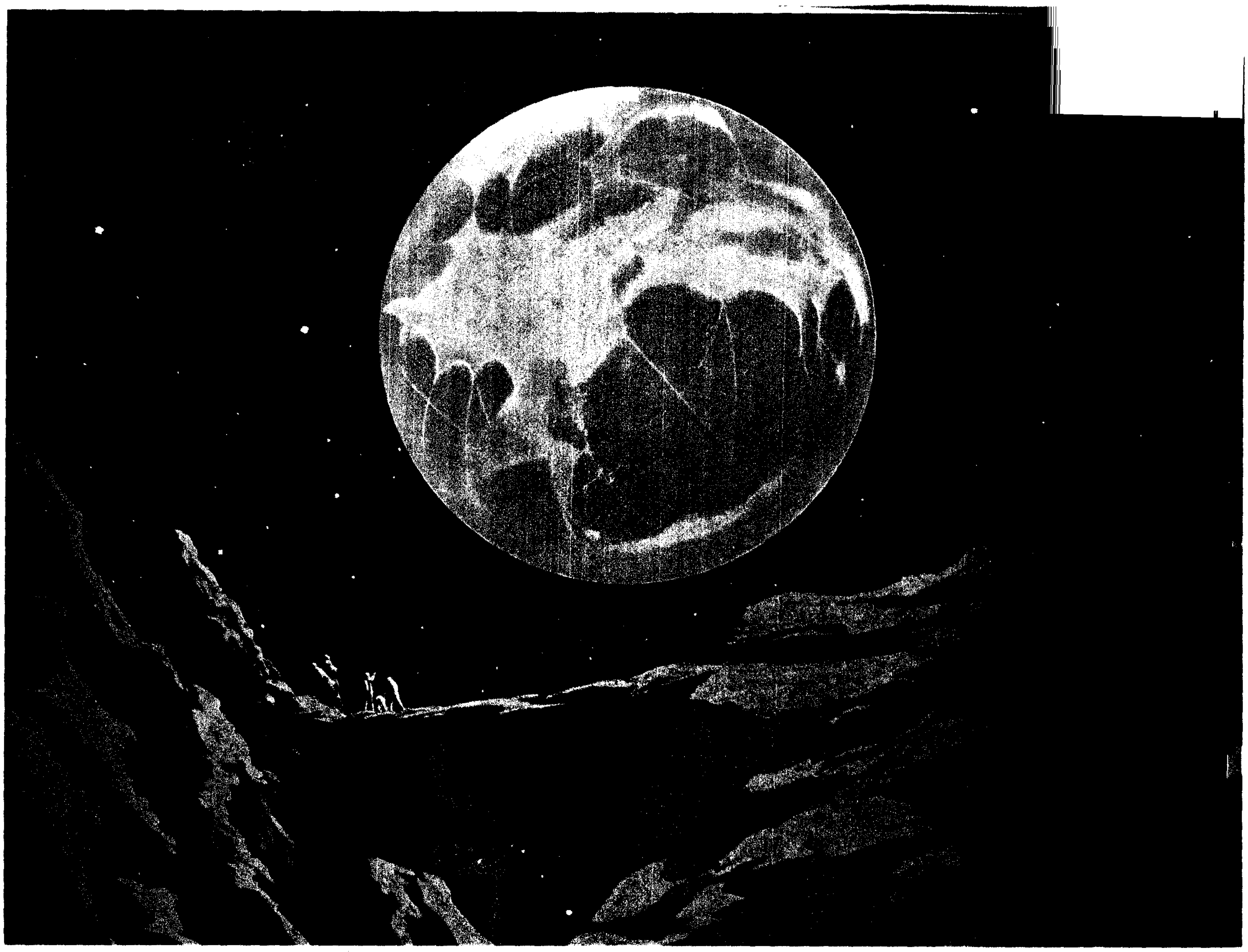
In short, man was not made to survive in the "hostile territory of space." It becomes the problem of the engineers, therefore, to create a highly mobile, self-contained, "packaged" environment for space-faring man. In other words, he needs an airtight shell to produce and preserve earthly conditions as nearly as possible.

Man is extremely hard to please in his demands, but the engineer can lick the problem and supply the crew of a rocket ship or space station with all the necessities for survival. Neither rocket ship nor space station will have the snug comfort of Mother Earth, and flying through space will be a rough job that will call for healthy, tough and physically well-trained individuals. But it can be done.

Some pessimists maintain

(Continued on page 65)

DRAWINGS BY ROLF KLEP



Mars, at its closest 35,000,000 miles from the earth, as seen from its outer moon Deimos, where man could land before going on to the planet

Who Owns the Universe?

By OSCAR SCHACHTER

Deputy Director, Legal Department, United Nations

The approaching age of space travel poses legal problems that lawyers already are grappling with. The freedom-of-the-seas principle may solve some of them

WE HAVE all heard about attempts to sell real estate on the moon and have laughed at the poor suckers who bit. Indeed, to say that someone wants the moon means simply that he wants the impossible. But now that scientists have shown that man can conquer space and that new worlds lie within his reach, the question of "owning" the moon and the planets no longer seems to be so much of a joke. Today, the question is not at all farfetched and, in fact, it may well have important consequences for all of us.

Of course, the real issue is not whether private individuals may sell real estate on the moon or go into business outside of the earth. The serious question, like so many others today, concerns national governments and their respective rights and powers. Will these governments claim "ownership" (or, more correctly, sovereignty) of the moon and other celestial bodies, just as today claims are being made to the barren wastes of the antarctic? Will there be national rivalry to plant the Stars and Stripes, the Union Jack and the Hammer and Sickle far off in space, so that the governments can then assert exclusive control and keep others away?

And what of rocket ships and space stations? What rules will govern them and, most important, will they be free to move about high above peaceful nations, laden with weapons of mass destruction? In this time of international tension, it may not be too soon to think about these questions.

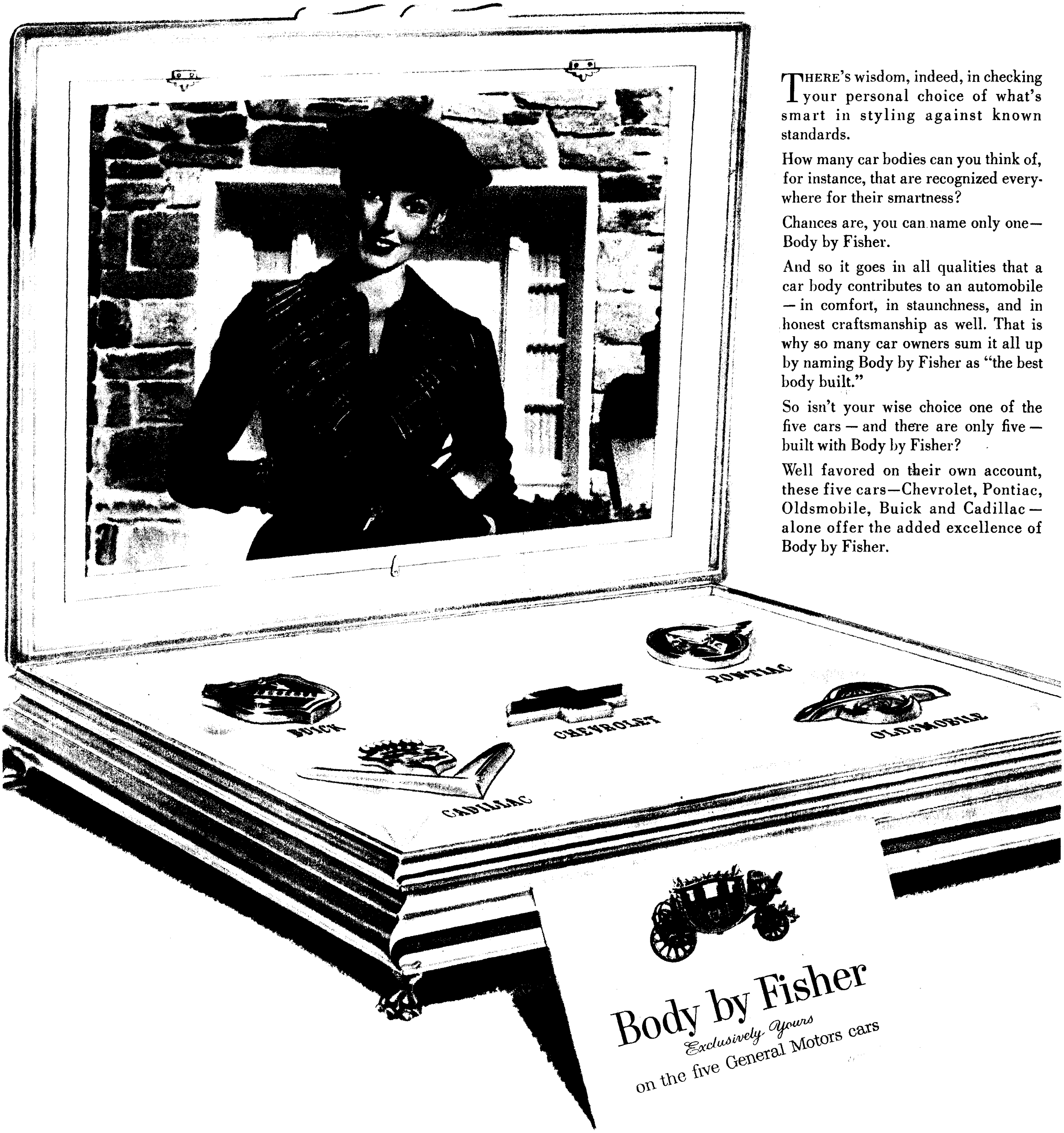
Where can one find principles and precedents to answer these problems? Interestingly enough, we have to go back four centuries, to the great age of exploration and conquests, when Columbus, Magellan, Vasco da Gama and the Cabots found and claimed new worlds for their royal sovereigns. It was these colorful adventurers, hunting for treasure and glory, who set the scene for the development of new legal principles— indeed, of the whole new system of international law that was to govern the relations between independent nations for centuries thereafter. The reason for this was that the discovery of these new territories immediately presented political and legal issues.

The great maritime powers of that day, Spain and Portugal, had to find a method of settling their claims to avoid war. With the advent of British sea power, further adjustments had to be made. There was the obvious problem of deciding who was to exercise sovereignty over the new areas. (The lawyers referred to these regions as *"terra nullius,"* that is, land which belonged to no one.) Was it enough that the navigators made the initial discovery and then sailed away after planting the royal emblem? Or was it necessary that there be an occupation, at least a small settlement, in order to acquire dominion over the newly found region? And, finally, could the seas themselves be claimed as national territory?

At first, it was thought that these questions could be settled through the authority of the Pope. Almost immediately after Columbus' discovery, the famous Papal Bull of 1493 was issued, dividing the world between Spain and Portugal by a meridian line running a hundred leagues west of the Azores, through both poles. What *(Continued on page 70)*

PAINTING BY CHESLEY BONESTELL

It's wise to be smart


BUICK
CHEVROLET
PONTIAC
OLDSMOBILE
CADILLAC
Body by Fisher
Exclusively Yours
on the five General Motors cars

THERE'S wisdom, indeed, in checking your personal choice of what's smart in styling against known standards.

How many car bodies can you think of, for instance, that are recognized everywhere for their smartness?

Chances are, you can name only one—Body by Fisher.

And so it goes in all qualities that a car body contributes to an automobile — in comfort, in staunchness, and in honest craftsmanship as well. That is why so many car owners sum it all up by naming Body by Fisher as "the best body built."

So isn't your wise choice one of the five cars — and there are only five — built with Body by Fisher?

Well favored on their own account, these five cars—Chevrolet, Pontiac, Oldsmobile, Buick and Cadillac — alone offer the added excellence of Body by Fisher.

...SPACE QUIZ

The fascinating aspects of man's study of space are—like space itself—infinite. Naturally, not every one of them could be incorporated in this symposium. However, some of the most intriguing questions which arose during the preparation of this issue, and the answers provided by the scientists who participated in it, are listed below

Q. ***Is interplanetary travel possible?***

VON BRAUN: Certainly, once we have a station in space that would enable us to take off refueled and unimpeded by the earth's atmosphere. Although Venus is the closest planet (26,000,000 miles when it swings toward the earth), the easiest interplanetary trip would probably be to Mars (35,000,000 miles), since either of its two moons is close enough to serve as a space station for the return voyage. To land on Venus, we would have to establish a temporary space station around it. Traveling at the most economical speed, a rocket could make the one-way trip to Mars in 258 days, or to Venus in 146 days.

Q. ***Have any living creatures already been rocketed into space?***

LEY: Yes. It has been announced that certain plant seeds and specimens of the fruit fly (the species *Drosophila melanogaster,* widely used in experiments in genetics) were sent up in V-2 rockets a few years ago. They made the trip unharmed. It seems reasonable to assume that larger creatures have been rocketed past the atmosphere since then.

Q. ***How large can we expect the meteorites to be which will endanger space travel?***

WHIPPLE: They will vary in size from pellets much smaller than a grain of sand (the tiniest of these are called cosmic dust) to monstrous—and, fortunately, rare—affairs that might be termed "flying mountains." The largest meteorite on exhibit anywhere in the world is the Ahnighito, found in Greenland, which is on display at New York's Hayden Planetarium and weighs at least 35 tons. But there is one embedded in the ground at a place called Hoba West, near Grootfontein, South-West Africa, estimated by some to weigh as much as 60 tons. Cosmic dust will not pose a real threat in space, but it will be a nuisance. For although it will not be able to puncture the walls of a space station or rocket ship, it will slowly sandblast all windows continuously exposed, making them more and more difficult to see through. The solution might be transparent plastic window coverings, which could be discarded when rendered useless by the tiny meteorites.

Q. ***What are some of the unsolved hazards that man will encounter in space?***

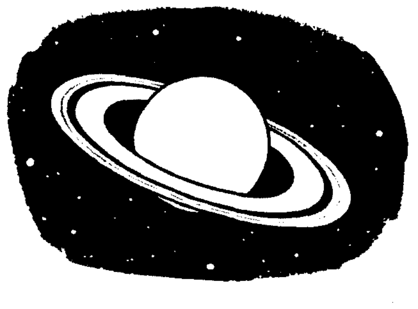
HABER: Granting that scientists have found a workable solution for the menace of meteorites, the greatest remaining hazard is that of the mysterious cosmic rays—nuclear bullets like those released by the atomic bomb, which streak unpredictably through space. To bar them entirely from space craft would require an extremely thick wall of lead or an armor of nickel-steel at least two inches thick. Either of these would be prohibitively heavy. Fortunately, although no one knows how dangerous cosmic rays are, many experts are quite optimistic. Another unsolved hazard is a psychological one: men cooped up in small rocket ships, on long trips through space during which there is little to keep them occupied, will suffer from such severe boredom that it may become a very important factor in space travel. There are lesser problems, too, of course, but in all probability most of the hazards of space will be solved by the time construction of the first space station is completed.

Q. ***Since some of the planets have no atmosphere, is it possible that someday we may lose ours?***

KAPLAN: Not unless two very unlikely events occur: (a) if the earth inexplicably loses much of its weight (and, therefore, much of its gravity); or (b) if we move closer to the sun. The more heat the sun pours into the molecules of air that comprise the atmosphere, the faster the molecules move; the faster they move, the more they tend to break away from the gravitational pull that keeps them close to the earth. Those heavenly bodies which lack atmosphere—like the planet Mercury, and all the moons of all the planets, except for Titan, the largest moon of the planet Saturn—lack it because their gravitational pull is too weak.

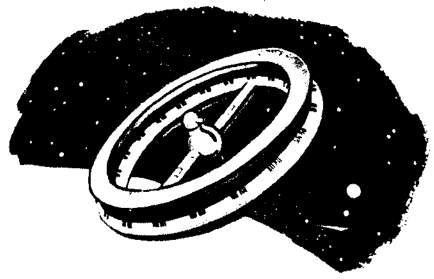
Q. ***What special training, if any, will space travelers require?***

HABER: They will have to be both physically sound and well informed on pertinent subjects. Besides a complete physical checkup, they probably will have to undergo tests to determine their reaction to acceleration and to weightlessness. One important requirement will be familiarity with the theory of space travel; another will be a reasonably good education in astronomy. As knowledge of space travel progresses, special tests for space aptitude doubtless will evolve; meanwhile, most of the early spacemen are likely to be pilots who have flown in jet or rocket airplanes, who are in good health, who have the necessary theoretical knowledge—and who are sufficiently versatile to deal with the wide range of problems likely to be encountered in space.



Q. ***From what places in the world could a rocket ship be launched into space?***

VON BRAUN: There are a number of places which might prove practical. The requirements are simple: any seacoast with 1,000 miles of water in an easterly direction—so that the rocket, which must be launched into space toward the east, could drop its two booster stages over water—would be satisfactory. That description applies to countless islands in various oceans; to the whole east coast of both North and South America; much of the east coast of East Asia; the east coast of the Japanese Islands; the east coast of Madagascar and Africa; and the east coast of both islands of New Zealand, plus part of the east coast of Australia (only part, because in some places either New Zealand or the Great Barrier Reef might interfere). However, it would be desirable to have islands a few hundred miles east of the launching site, from which the vessels could operate which retrieve the two booster stages. That would further restrict our choices.



Q. ***How about rocket travel on earth?***

LEY: Plans for long-range rockets which could travel between two distant points on earth have been developed by various scientists. The latest proposal, for a trip between Los Angeles and New York, is that of Dr. Hsue-shen Tsien of the California Institute of Technology. His winged rocket would rise to a top altitude of more than 300 miles, being powered for only the first third of the climb. Then it would swoop down until it reached an altitude of 27 miles, some 1,200 miles east of its take-off point; the remainder of the trip would be a supersonic glide at that height. Here are some of Dr. Tsien's figures: take-off weight, 50 tons; duration of powered flight, 150 seconds; duration of entire flight, one hour; landing speed, 150 miles per hour. Although such a rocket could be developed now, it is doubtful that a coast-to-coast rocket line would be commercially feasible at present.

Q. ***What is the temperature in space?***

KAPLAN: There isn't any. It may be hard to imagine, but since space is a vacuum it lacks temperature entirely (a vacuum is "nothing," and "nothing" cannot have a temperature). A rocket ship near the orbit of the earth would, however, have an internal temperature determined by the amount of heat it absorbed from the sun (93,000,000 miles away) on one side, and the amount of this heat it lost on its shaded side. This can be controlled to a certain degree. If the ship were of a dark (heat-absorbent) color, it would assume a temperature of about 60 degrees Fahrenheit. If its color were lighter, the temperature would be lower. And if the ship were nearer the earth, it would be somewhat warmer—because it would catch additional sunlight reflected from the earth.

Q. ***Will atomic energy be used to power a rocket ship?***

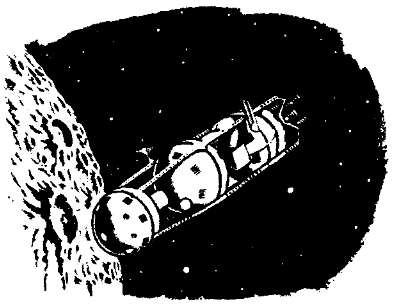
VON BRAUN: Not for some time to come. Atomic power is being developed for submarines and is

Around the Editor's Desk

planned for airplanes, but in both these cases an atomic "pile" will merely substitute for part of the conventional engine; actual propulsion will still be the work of a propeller. In a rocket ship, the rocket does its propelling by ejecting powerful gases behind it. Even if a new method of space propulsion is found, permitting the use of atomic power, an additional problem will be the heavy wall of steel or lead required to protect the crew from radiation. Furthermore, an atomic rocket motor will never be practical for launching rocket ships from the earth, because of its radioactive exhaust. In any event, we need not wait for atomic-powered rockets; known chemical fuels will do the job.

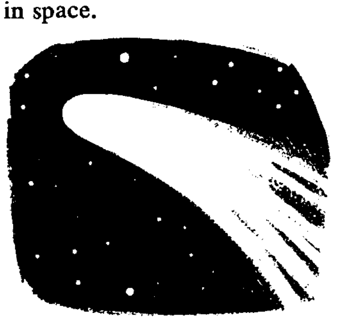
Q. ***Would the artificial air pumped into a space station or the cabin of a rocket ship have the same composition as the air that men breathe on the earth?***

LEY: As part of the necessary protection against meteorites, helium may prove a desirable substitute for the 80 per cent of nitrogen present in the air we normally breathe (the other 20 per cent could continue to be oxygen, as it is on the earth). If a meteorite punctured the skin of a space station or rocket ship, the resultant drop in air pressure would be hazardous even if the loss of oxygen could be countered by wearing masks. Like deep-sea divers brought to the surface too fast, the spacemen might suffer an attack of "the bends"—an often fatal affliction caused by the fact that some of the nitrogen we breathe forms painful and dangerous bubbles in the blood when the pressure drops suddenly outside the body. Helium does not dissolve easily in the blood stream. The Navy has tested a helium-oxygen mixture in deep-sea diving with good results.



Q. ***Considering the complicated problems posed by travel in space, how could a guided missile be fired accurately from a satellite to earth?***

VON BRAUN: The principle would be much the same as that used to fly a rocket ship from space to earth. As our space station circled the globe, the missile would be launched *in the opposite direction.* The reason is this: if the missile were simply detached from the space station, it would continue circling the earth, just like another satellite in the same orbit; if it were fired in the same direction as that in which the station was moving, it would fly off farther into space. Only if fired "backward" would it lose sufficient speed, in relation to the earth, to descend from the orbit. It would leave the station at a speed of 1,048 miles per hour; at the time it was fired, the target at which it was aimed probably would be invisible, located on the back side of the spinning earth below. The weapon would enter the atmosphere on a course roughly paralleling the surface of the earth; its position and relationship to the target (when it finally came into view of the satellite) would then be determined by radar. Remote radio control would guide the missile to its destination. Naturally, the guided projectile would not be slowed down further for its "landing," in the way that a rocket ship would be as it came close to the earth. Instead, the weapon would approach the target moving faster than the speed of sound. No place on earth, from pole to pole, would be safe from such a weapon fired from a satellite in space.



Q. ***To what tribunal would questions of space law be referred?***

SCHACHTER: A dispute in space that involved two or more governments could be submitted to the International Court of Justice at the Hague, just as international disputes are today. Naturally, precedents in such a case would be difficult to determine; but the court could apply rules expressly agreed to by the contesting governments. If no such agreement could be reached, international custom or the general principles of law might provide a guide. Alternatively, the governments might submit the case to a special court set up just to decide that one dispute. In a dispute between individuals, rather than governments, jurisdiction might lie with a local court in the place where the individuals normally lived, or perhaps with a court where the space station or rocket ship involved was registered.

Q. ***What, specifically, would be bought by the $4,000,000,000 estimated as the cost of establishing a station in space?***

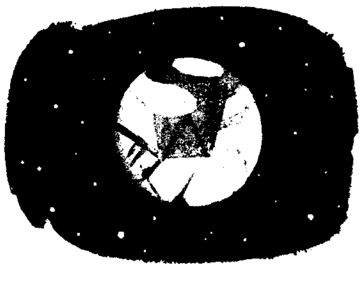
VON BRAUN: The great bulk of the money would be spent for experimentation, testing, construction of a fuel-producing plant, and other preliminaries to a permanent space program. Once the initial phases of the program had been paid for, costs would drop abruptly. For example, it would be necessary to make special high-altitude test shots with unmanned rockets before actually proceeding with the establishment of a space station. This might involve constructing and firing into space a small version of the three-stage rocket that promises to be the main space vehicle of the immediate future. This small model would be sent into the "two-hour" orbit later to be occupied by the artificial satellite; instruments inside the rocket, employing methods already in use, would transmit vital information back to earth. The fuel to be used in our projected space travels would consist of nitric acid and hydrazine; the first of these ingredients is being mass-produced for commercial use, but special factories would have to be built to manufacture the hydrazine, which has little commercial application at present. In short, the $4,000,000,000 would buy everything from the paper on which the experts did their initial calculations to the circling space station itself. Perhaps a dozen cargo-carrying rocket ships would be needed to carry the components of the station to its orbit around the earth; thereafter, presumably, production of rocket ships would continue. As an indication of how expenses would drop once the project was under way, the ultimate cost of these rocket-powered vehicles probably would be less than $1,000,000 each—no more than the current purchase price of a large air liner.

Q. ***Is there life on other planets?***

LEY: Most astronomers agree that there is primitive plant life, like lichens and algae, on Mars. The presence of this potential food supply has led a number of biologists (although not all of them) to conclude that there may be some form of animal life there, too. It is very doubtful that life of any kind exists on the other planets, however. The five which are farthest from the essential warmth of the sun—Jupiter, Saturn, Uranus, Neptune and Pluto—are much too cold to support life as we know it. Venus, which is closer to the sun than we are, is considered too hot. Peculiarly, Mercury, which is closest of all to the sun, offers the only other possibility of life. That's because Mercury keeps one face turned constantly toward the sun, just as our moon shows only one side to the earth. The "daylight" side of Mercury is extremely hot—hot enough to melt lead. Its "night" side is correspondingly cold. However, these two extremes are separated by a so-called "twilight belt," where temperatures approach those of the earth and Mars. It is just conceivable that life may have taken hold in that dim, narrow strip between the unbearable heat of Mercury's daylight and the terrible cold of its night.

Q. ***Would Soviet Russia enjoy any advantages in a race for space superiority?***

VON BRAUN: Just one advantage of any importance, so far as is known. Because the country is huge, and barricaded behind the Iron Curtain, the initial phases of a space program could be kept secret much more easily in the Soviet Union than in the Western World. One other advantage *may* exist: the Soviets claim a head start. There is no way of telling whether that is true. Obviously, there are several conditions which must be met before any nation could establish a satellite in space, and thus assume space superiority. First, of course, that country would need trained rocket researchers. Whether the U.S.S.R. has such scientists in any number (and of sufficient caliber) is uncertain. Of the experts who gave Germany its enormous lead in rocketry during World War II, only one, Helmuth Groettrup, is working for the Soviet Union; several are employed by the United States. Another major requirement is a highly diversified industrial economy; in this respect, the United States is certainly far advanced over Soviet Russia. Finally, in the matter of the necessary natural resources, it is doubtful that either side has an advantage. The raw materials needed for a space program are fairly common and probably are as easily available in the U.S.S.R. as in the West. Summing up, the advantage in the competition to conquer space probably rests with us—if we move quickly. ▲▲▲



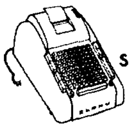
DRAWINGS BY LOWELL HESS

Retailers! Clary Cash Registers Can Cut Tax Work in Half

CLARY'S SELF-BALANCING, bookkeeping cash register tells you at a glance every day what your business is doing. Locked-in autographic tape keeps printed record of every transaction for quick yearly tax information and proof. Start today to simplify your next year's tax figuring.

TWO MACHINES FOR THE PRICE OF ONE— Converts to world's fastest adding machine. Adds, subtracts, multiplies, divides up to 48% faster. Clary cuts after-hours work on payrolls, inventory, discounts, all figuring jobs. There's a model for *your* business. Easy terms.

Clary does your work faster



SEE YELLOW PHONE BOOK PAGES FOR CLARY ADDING MACHINES, TOO!

Main Office: San Gabriel, California
Eastern Plant: Downingtown, Pennsylvania

SEND FOR FREE BOOKLET
"Establishing & Operating Your Own Business"
Clary Multiplier Corporation, Dept. C-3
San Gabriel, California
*Name*____________________
*Address*____________________
*City*__________*( ) State*__________
*Type of Business*____________________

The Currach Race

CONTINUED FROM PAGE 17

double the age a ye. I could g'out on that bay tomorrow morning, if I had a child in the boat with me to balance it, and I could welt the two a ye. Is that right, Kineally?"

"You were ever a powerful man in a boat, Donagh," Kineally said sincerely, "and yer father before you was the same. If yer father was alive, God rest him, and was in the seat with you in the boat, there isn't two men in Ireland could whip ye."

"What?" asked James, the taller Conneely. "Is *it* poor oul Donagh? What, man, days away he might have been good, but the salt has the meat eaten offa him now. He's fit for nothing better now but being a ghillie for stupid fishermen on an inshore lake."

DONAGH was in a red rage. He cursed them. He called them names. They laughed at him. They were all a little drunk by this, anyhow. All the men in the pub had closed around them and, with sly grins, were urging them on.

Donagh was squaring up, as old men will do when their virility is questioned. He was hitching at his belt. There was a fire in his eye. "Come on now!" he was saying. "Come on out now! Drag down yer boats into the light of the moon and we'll launch them and I'll take on the two of ye!"

"Ah, look now," Kineally was saying, becoming a little afraid that things might get hot, "cool off, men. There's tomorrow. Tomorrow is a holy holiday. Settle it tomorrow."

"I'll take them on tonight or tomorrow or any day in the year," Donagh was shouting. "There wasn't a Conneely born yet that I couldn't bate blindfolded on the sea or the shore. I'll fight them now, the two of them, here on this spot, if they want it that way." He was pulling at his coat.

Colm must have been a little drunk too. "Don't be an old fool, Donagh!" he shouted.

Donagh calmed down, hitched up his coat, and turned slowly to face him. "All right," he said. "Mister Colm tells me to calm down. I'm calm now, men. We'll make this fit. Here you have me, an old man. There you have two young men whose mouths are stronger than their hearts. We'll launch two currachs tomorrow after last Mass and we'll have a trial of strength across the bay. Them in one boat. Me in the other, and Colm here coming with me to balance it. He knows nothin' about boats, ye know. He doesn't approve of boats, ye know. So he can just sit on his tail coat and flip an oar, if there is that much good in him. And I'll still bate ye. Hear that now! Well, Mister Colm? What do you say to that, now?"

Colm should have gone home. He realized that later. But the old man had him mad too. "Maybe I can row a boat betther than any man here," he said. "Maybe I can, now. Maybe I can show some of ye heroes that a farmer is a better man in a boat than any two of ye!"

What has come over me? he thought. The things I despise—the two B's, boasting and boats. And here I am in the middle of them all because an old man looks at me with scorn and derision and taunting in his eyes. I don't like him. This has nothing to do with his daughter. This is just something between him and me.

Colm and Donagh stood up straight and glared at each other, and Colm put down his glass and walked out of the place. He heard laughter following him into the night.

After last Mass on Saint Patrick's Day in the village, there were hundreds of people gathered on the two necks of land which embraced the sea on either side of the strand. The whole place was shaped like a crescent. Six miles of rough sea separated the two arms. The sun was cold-looking, and there was a good breeze traveling from the direction of America. You would swear that the sea was clapping its hands because somebody had told it there were four fools who might otherwise have remained out of its grip at this time of the year. The tips of the arms were rocky promontories, like two spear points of tested metal which dug into the waves and broke them up.

The promontories were festooned with people. There was color there—all the lassies in their Sunday clothes and the old women in red petticoats and checked aprons and plaid kerchiefs. The sun gleamed off the handle bars of bicycles lying grotesquely in the fields. The people were chattering and laughing loudly and laying bets on the event.

Colm went through agonies of embarrassment as he made his way down to the south point. People made way for him and pointed him out. He felt cold in his stomach. He had given up wondering what had possessed him the night before, and he had come down here hoping that it was only a drunken dare and that he could go home and forget all about it. The sight of all the people disillusioned him. The sight of Donagh sitting nonchalantly on the edge of his upside-down currach convinced him. He went up to him.

"H'm," said Donagh, "I was wonderin' if you'd turn up."

Colm didn't answer him. He just stood there and narrowed his eyes against the glare of the sea. He didn't turn round where the people were crowding. What would Sorcha think of him? "Where are the Conneelys?" he asked hopefully, hoping that they might have died in the night, of convulsions.

"Here they are now," said Donagh, nodding his head.

The Conneelys came down toward the narrow quay, carrying the currach on their shoulders. Their heads were hidden under it, so that you saw only their legs walking. It looked funny. People addressed remarks to them as they arrived, and their voices and laughter boomed from inside the boat. They reached the quay and lifted the boat from their shoulders.

"Hah, so ye're here," said James. "I thought ye might have run out of the country for shame."

His brother was grinning too. "It might have been betther for them to have run away," he said. "Won't they be the laughin'-stock of the whole of Connemara in about four hours?"

"I wouldn't waste me breath on ye," declared Donagh, rising, "and when Pat Kineally gets here to start us off, I'm goin' to be sorry for the pair of ye."

"Here's oul Pat now," somebody behind said, and Pat came down in his bowler hat, puffing, because the only exercise he ever took was pulling at porter.

"Right, min, right, min, right, min," said Pat. "Launch the crafts till we get this over. A great day," he went on, rubbing his hands and counting with his eyes the number of porter drinkers on the two necks of land. "We'll have a great day when this is over. This'll go down in the history of the parish, so it will, and may the best men win."

"Colm," said Sorcha, catching his sleeve and making him turn toward her. Her hair was wild in the wind, and she seemed to be angry. "What are you doing this for?" she asked, not caring whether Donagh heard her or not. "Don't you know he only wants to make a joke of you? He doesn't care about the old race. He cares about you. He'll always say, 'If only I hadn't that fool of a farmer in the boat.' That's what he'll say. Don't heed them now, Colm. Walk away from this with me, and if you like I'll never set a foot again in my father's house."

COLM sensed Donagh's silence and the anger of Sorcha. Who'd have believed it of Sorcha? Well, what am I waiting for? he thought. Nothing, except the something primitive that's in all of us. "They have laughed at me before, Sorcha," he said, "and please God they'll laugh at me again. But this is different. This is something else. I'm goin' out on that sea if it's the end of me."

"It's likely to be the end of you," she said, stamping her foot. She had nice Sunday shoes on, he noticed, and her leg looked very rich in the silk stockings. "There's a good sea out there and it's a treacherous place between the two necks."

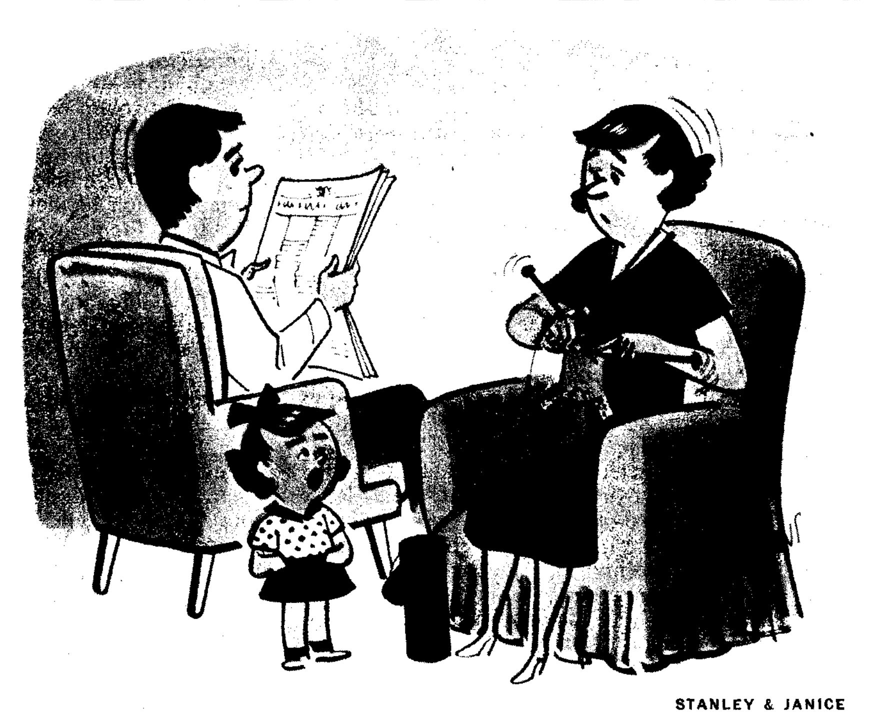
"There'll be four men in the boats," said Colm, "three fishermen and a farmer, and if I'm the only one of them that can't fish, I'll take me oath I'm the only one of them that can swim, and that's something."

"If you're comin'," said the voice of Donagh, "let you be launching the boat with me. If you don't want to come, I'll take Sorcha."

"I'm off now, Sorcha," said Colm, turning away from her.

He gave them all a big laugh then. He

SISTER



COLLIER'S "That'll never fit Da—uh-oh!" STANLEY & JANICE BERENSTAIN

This could happen only in America

A 50th Birthday Message from The Texas Company

FIFTY years ago a tiny company was started in Beaumont, Texas, where oil had just been discovered.

This company started with one tract of land which might contain oil, one storage tank, one short stretch of pipe line, one pile of bricks for building a refinery—a little money and a lot of hope.

On its golden anniversary, this company has 9,700,000 acres of producing or potential oil land in the United States, owns or operates more than 7,000 miles of pipe lines, drills close to a thousand new wells each year, has refineries, oil storage tanks, distributing plants, research laboratories and all the other complex facilities needed to serve customers in every state of the Union and throughout the world.

This company also has today over 100,000 owners—investors whose faith and dollars helped it to rise to its opportunities.

Such things could happen only in America—because only America gives men the freedom to make them happen.

This is a land where men have been free to run risks and reap the rewards their courage and judgment deserve.

It has been a land where men have been free to invent or invest—to pioneer or produce—to the limit of their ability and their vision of what could be done.

It has been a land of independence of thought and action—in which the best man was allowed to win.

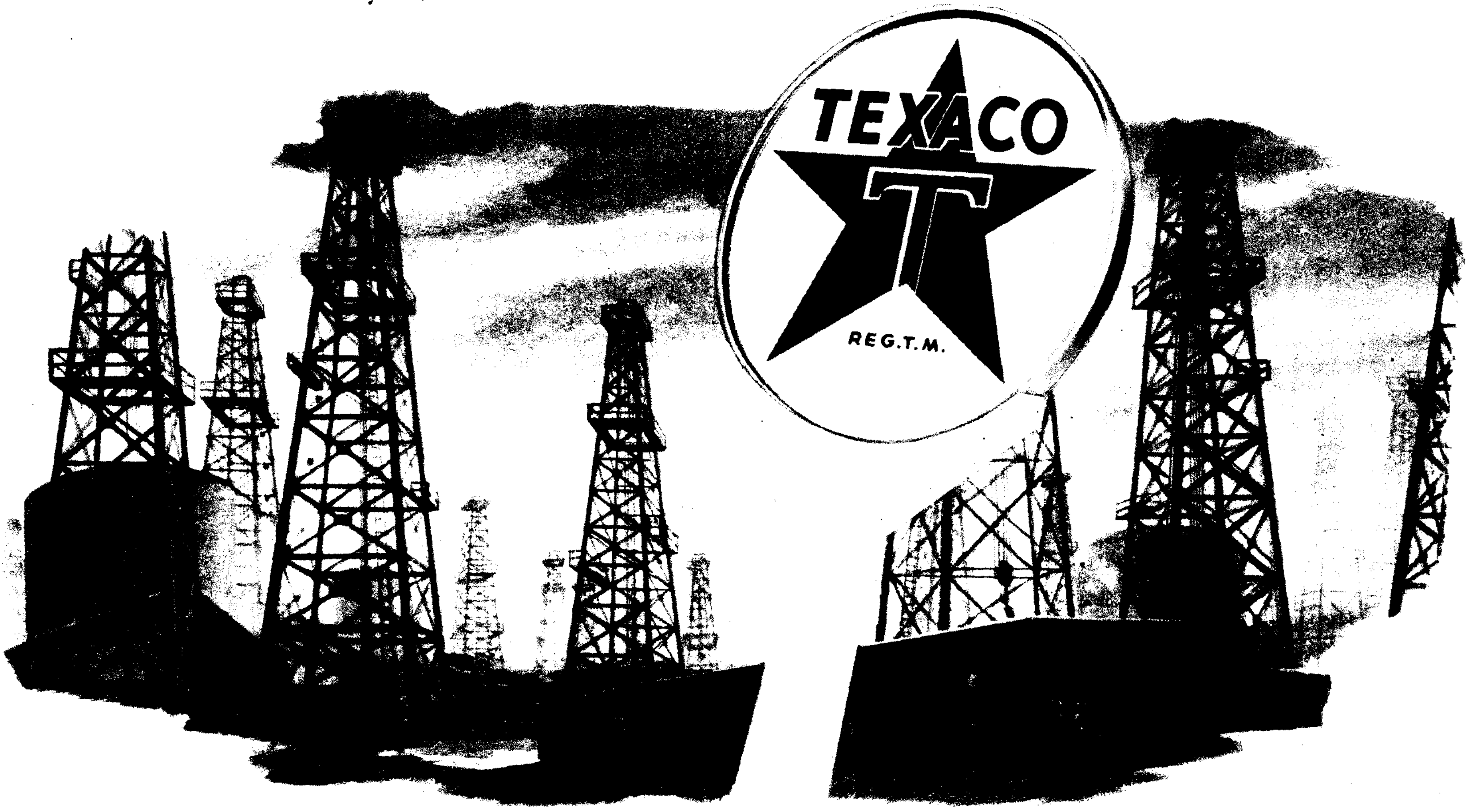
The Texas Company has gone it alone in the oil business—asking no favors—standing on its own feet—competing for its share of the business by developing and marketing good fuels and lubricants—seeking no security except that which it could earn.

Other companies have gone it alone in other industries. And we—and they—and America have grown together, beyond anything the world has ever seen.

It is not by accident that America builds 83% of the world's automobiles—generates 42% of the world's horsepower—and produces 51% of the world's oil.

That is why America, over the past fifty years, has been known as "the land of opportunity."

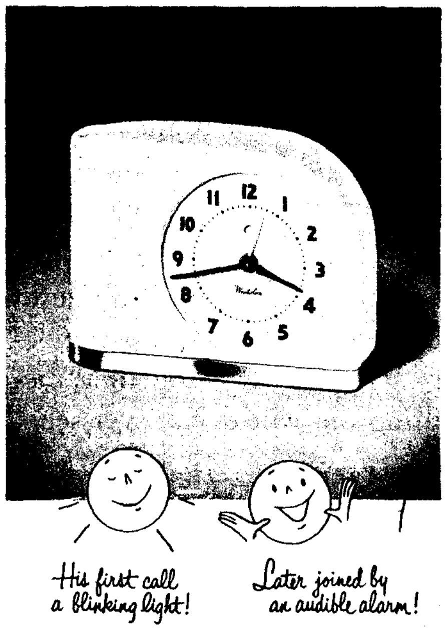
That is also why, in a world which lives today in the shadow of conflict and in an atmosphere of economic uncertainty, America shines as an island of hope for all to see.



THE TEXAS COMPANY

Faithfully Yours for Fifty Years
1902-1952

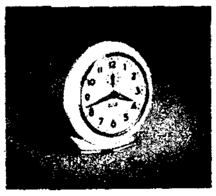
Here's the one alarm clock that calls you SILENTLY



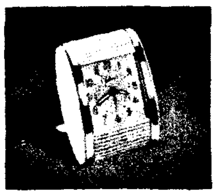
His first call a blinking light!
Later joined by an audible alarm!

MOONBEAM ELECTRIC ALARM

Are you the early-morning hard-of-hearing type? Or just one more poor sleepyhead, resigned to being roused, but wishing it could be done ever-so-gently? Then harken to the wondrous workings of the Moonbeam! For this completely different kind of electric "alarm"—exclusive with Westclox—*calls you silently.* Yes, Moonbeam's first call is silent—a blinking light that will not disturb the rest of the family (not even the baby). But if you ignore the light and do not shut it off within a few minutes, Moonbeam adds to the light a cheerful, audible alarm. Now, what could be more considerate than that? And Moonbeam is only $9.95. Comes with luminous dial for a dollar more.



BABY BEN ALARM. Popular kid brother of Big Ben. A quiet tick and a steady call, adjustable to loud or soft. $5.45. Luminous dial, a dollar more.



TRAVALARM. You *can* take it with you. Closes up like a clam for traveling; tucks easily into the corner of a bag. Comes in luminous dial. $7.45.

Prices do not include tax and are subject to change

WESTCLOX

Made by the makers of Big Ben

PRODUCTS OF GENERAL TIME CORPORATION

carefully removed his navy-blue coat and folded it and laid it on a rock. He was wearing a collar and tie, and he removed these too. The two Conneelys were already in their boat on the water, holding on to the side of the pier with their thick hands. They were unshaved and had jerseys on them, with the white bainin coats over them. They looked so different from Colm on the pier in his white shirt and his trousers with the lovely crease that people around started giggling. You couldn't blame them, as men said afterwards. It was a cruel shame to have a swank like Colm getting into a currach.

THEY launched the boat. Colm looked at the running sea and felt the lightness of the currach that was nothing but tarred canvas stretched over thin laths, and he didn't feel very well. All right. He tightened his jaw muscles. The currach was leaping around like a cork on the water. Donagh lowered himself into it, and it steadied a bit. Colm sat in the seat behind him. The Conneelys were laying off from the pier now, riding the rough sea with seemingly effortless ease, flipping the tops of the waves with the heavy oars.

Pat Kineally was shouting, his hands around his mouth, "Get off in a line out beyont, and let ye be ready to go on a shout."

Donagh tugged the water with his oars, and they flew away from the pier. Colm tried to match Donagh's stroke with his own, but missed the wave and locked his right oar under Donagh's. The boat slued around and headed back for the pier. He reddened at the remarks from the shore. "Let them trail," said Donagh, not sharply. "Watch my back and don't be watching me oars. When I lean, you lean; when I pull, you pull." He turned the boat again. Colm held the oars free of the waves and watched the rhythm of the back in front of him. Then he took it up. After all, he had been in boats before. It was just that this whole thing was upsetting. Rowing a currach wasn't that hard. Look at them from the shore. Nothing much to it.

They lined up beside the Conneelys, who were spitting on a hand a time as they freed it from the oars. They were grinning—not talking, just grinning. They shouldn't have been, because Donagh was watching the shore and saw the raised hand of Pat Kineally and saw it fall. Kineally's shout was whipped away by the wind and came late, so that before they received it, cute oul Donagh was four boat lengths away and getting into his stride.

It's not too bad, Colm thought. It's a chip-chop movement. You don't dig in the oars; you chip them in and chop them out of the waves. The water was green and was breaking into white at its tops. It was also very wet. They were running parallel to the waves, so that they were up and down, up and down, and sometimes the waves broke into the boat and Colm felt the sea water on his legs, soaking through his lovely blue trousers with the tailor's crease still in them that would soon be gone forever.

He shortly began to feel the strain on the tendons of his left arm. The waves were hitting the bow of the boat and were driving it in, and this had to be countered by stronger pulling on the left oars. It didn't matter for some time. He tightened his big hands about the oars and pulled hard—in, out, chip, chop. I could do this before my breakfast, he thought.

He could see over Donagh's shoulder the Conneelys' boat coming behind them. They seemed to be pulling effortlessly. The two bodies acted as if they were on the one string. He could see muscles bulging under the clothes of Donagh's back. Donagh's neck was burned almost black from his years of sun. It was wrinkled and the tendons stood out on it. He's a good man in a boat, was Colm's thought. Colm tugged away joyously. They began to increase their lead. "Take it aisy, take it aisy," he heard the voice of Donagh then. "Save a bit for the road home. Remember that."

Colm sobered. Six miles across and six miles back. That made twelve miles. Would they do three miles an hour? Say four hours. Could I keep this up for four hours? Why not? I'll show them!

They heard the people shouting behind them as they approached the other neck. They were still in the same positions. The Conneely boat was almost four boat lengths behind them, but now Colm could only see them through waves of pain.

"Pull your right now! Your right now!" he heard Donagh shouting, and he automatically put pressure on his right oar. It was almost a pleasure, because his left arm seemed to be numb. The cross waves caught them on the turn, and water poured into the boat. Colm could feel it soaking into his body from the waist down. Then they were facing the crowded neck and were headed back, and the awful strain of the sea was pressing intolerably on the tendons of his right arm. He saw the people on the neck standing up, waving and shouting, but he couldn't see their faces for the mist that was in front of his eyes. He thought his eyes were wanting to burst out of their sockets. He heard Donagh's voice again. "Pull with your right and bail with your left. Bail with your left, hear!"

Colm let his left oar trail and fumbled behind him until his fingers found the tin can. It was rusty. He started to scoop out the water that was up as far as their shins. Donagh was doing the same, and, if he could have seen, the Conneelys were doing the same. It was a relief to stretch the fingers of his hand any way than about the oar. His hands had been blistered before from the grip of a spade or a slane or a scythe or the handles of a plow, but never as painfully as this. When blood blisters rose and burst in your palm, and when the water blister replaced the blood, you felt an intolerable agony that seemed to knife its way all through your body.

"Take it up now, take it up," said the voice of Donagh.

Colm took a pull again on his right oar. His arms seemed to have been pulled from their sockets now and to be lying loosely, held there only by the skin. There was a band of something about his chest that was pressing his lungs, so that the breath came rasping from between his lips. He had to breathe often. He didn't seem able to get enough air at all. The whole world was green, enveloping him. It was a green world on which he rose and fell, rose and fell, and little people had tied ropes around all his limbs and were dragging him apart.

He heard Donagh saying strange things. "Will we stop, Colm?" he was asking. "It wasn't a just thing to do. Let us stop now, in the name of God, and there will be shame from none for us."

Colm got some words out. "You didn't call me Mister Colm," he said.

"You're a good man, Colm," he heard Donagh say then, "and I'm an old fool."

Colm's breath was rasping from his chest. "Donagh," he said, "can I have your daughter Sorcha?"

"Colm," said Donagh, "if I had ten daughters, you could have the ten of them, but let us ease up now. It was a terrible thing I have done, and if you go on and we have to row in to the shore and you a corpse, what will my daughter Sorcha say to me?"

"Donagh," said Colm, "whereabouts are your men, the Conneelys?"

"They are five minutes or more ahead of us, Colm," said Donagh, "and if God above was with me in this currach now, there's not a thing even He could do about it."

"Donagh," said Colm. "Lets us row like fair hell and catch up the Conneelys."

He heard Donagh laughing. "By God, we'll try, Colm," Donagh said, "and win, lose or draw, I'd fight the whole of Ireland for you, and the wedding of my daughter Sorcha will be the greatest event that ever happened in the province of Connacht."

THE people on the shore saw a strange sight. Out there on the galloping waves, two black currachs were bobbing about, like corks kids throw into channels, with matchsticks sticking out of them. One was far ahead of the other, and in the following boat for some time the second rower seemed to be bent double over his oars and be patting at the waves as if he was playing with them, and then the man seemed to straighten and the second boat seemed to put on speed and seemed to be slowly and surely catching up on the boat ahead. The people from the far neck had raced across from there to this neck so that there was a great crowd on all the vantage places, and they were all stretching and leaning and crying shouts out of them like oyster catchers on lonely beaches.

Who crossed the point first? You can go back to that village now and go into Pat Kineally's pub for a pint, and when you have become strong in drink, you can express an opinion as to who won the famous currach race, and in all probability you will end up the evening with a black eye.

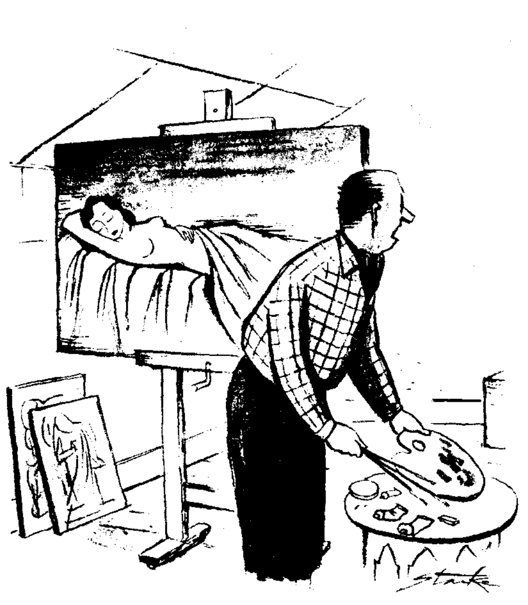
"It was the Conneelys, I tell ye!" "It was not!" "Didn't I see with me own eyes that Donagh's boat was the width of two oar blades ahead of them? Weren't they bet to the wide, weren't they?" "Who ever heard the like? Two grown men against an old man and a dungboy that never saw a boat in his life, and they whipped the divil out of them. Now, listen, Mister . . ."

Whatever happened after, that day the four men were welcomed at the pier like real heroes and they were hoisted up on shoulders and carried in triumph up to Pat's place. They got four free pints, which was a record for Pat, and Colm was clapped on the back as if he was a real fisherman, and when he got out of there he headed for Sorcha's place, and she was halfway to meet him on the road. They crossed a field to where Colm had his haystack tied up for the winter and he kissed her there, and then he fainted clear away and it took her five solid minutes of kissing him and loosening his shirt front and fanning him before he opened his eyes to the darkening sky.

He rubbed the worry from her forehead with his bruised fingers. "I'm sorry, Sorcha," he said. "But listen, your oul fella is a great man."

"That's odd," said Sorcha, who was crying, "that's the very thing he is shouting about you."

THE END



"You can rest for a little while now, Miss Goddard . . . MISS GODDARD!"

COLLIER'S LESLIE STARKE

GUARANTEED
SATISFACTION GUARANTEED
Holeproof®
NYLON
CONTENT
SOCKS
Holeproof

Holeproof

Guarantees America's biggest line of Nylon men's socks

OUR GUARANTEE

If the wearing quality of this pair of HOLEPROOF nylon content socks does not satisfy you within sixty days from date of purchase, return the socks with this guarantee and store sales check to the address below.

Equal replacement of socks will be made free.

HOLEPROOF HOSIERY CO.

MADE IN U. S. A.

What do you like—Argyles? Ribs, narrow or wide? Clocks? Patterns? Solids? Light weight socks? Heavy ones? Holeproof's got 'em in hundreds of colors and combinations for sport or dress wear. Every Holeproof nylon or nylon-content sock is GUARANTEED to please you, or a new pair free. Fashion Academy Award styling and extra long-wearing quality in every pair. Short or regular lengths. 75¢ to $3.95.

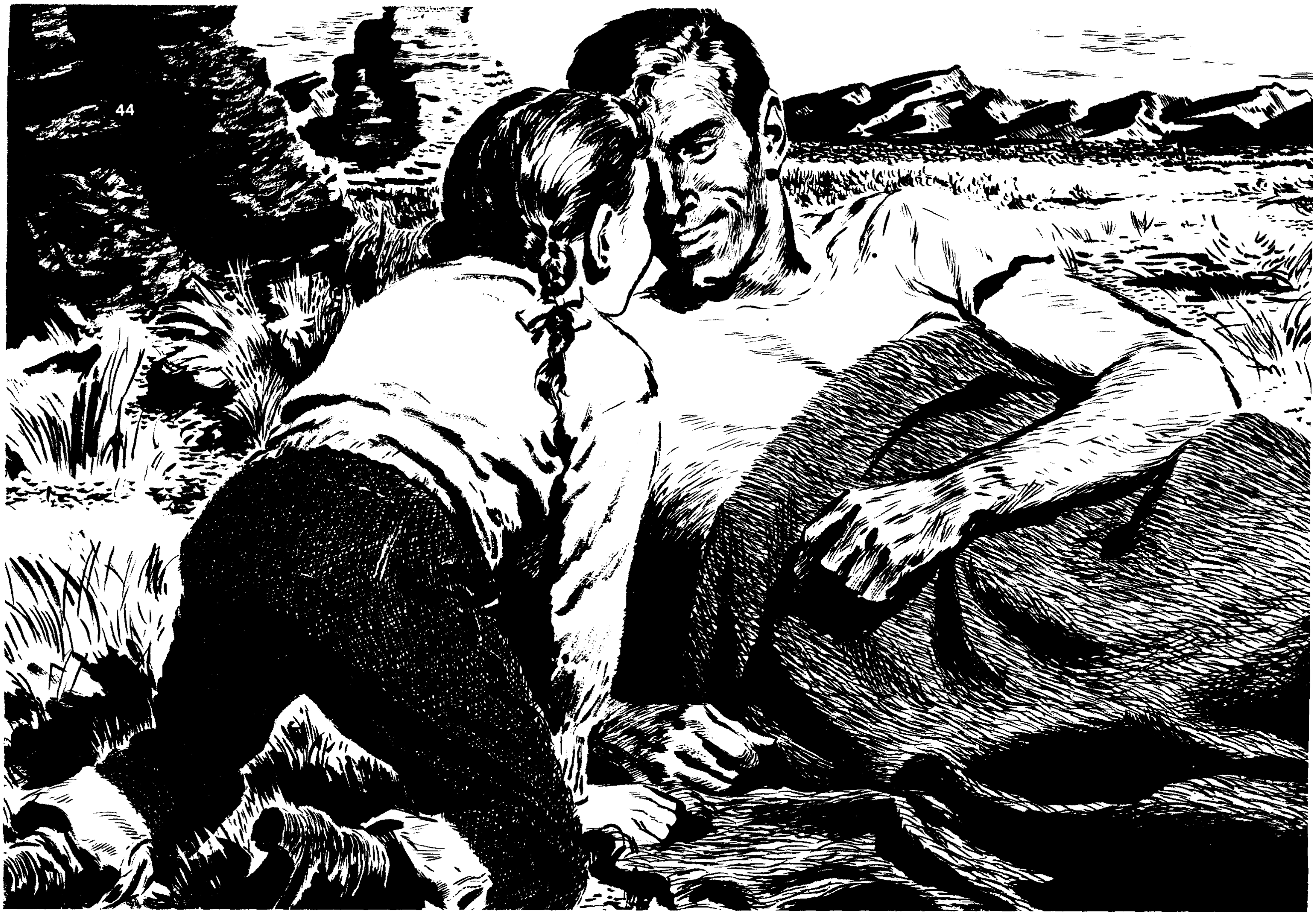
Holeproof socks also available in cotton, rayon, silk, lisle, wool and blends, 65¢ up.

Holeproof World Famous Men's Socks

®HOLEPROOF HOSIERY COMPANY, MILWAUKEE 1, WISCONSIN. IN CANADA: LONDON, ONTARIO

Luxite Lingerie and Hosiery • Holeproof Proportioned Nylons, Nappers—All-Nylon Slippersocks

Awarded the Fashion Academy Gold Medal



Penny saw him and came running, a tall child for her age, tall and thin and high-strung. She fell upon him. "Guess what's for breakfast"

Green Willow Growing

By PEGGY SIMSON CURRY

Tom was a country man, and all he asked was a piece of land to work, a place for his family to settle. But he had to find it now, right away, and he was no longer sure that he could

TOM HARRISON wanted to put his arms around his wife and hold her close to him, for he no longer felt sure of himself, no longer was certain a job was waiting beyond the next hill or the next valley. He had come to the end of his road, and this knowledge lay like a sickness inside him.

He turned toward her, but the child slept between them, her face small and lovely in the moonlight. He looked away from the child and toward the old lard pail which glinted there in the clearing by the river. He could see the dark outline of the willow rising out of the lard pail, a young branch of willow the child had kept in water until the roots were long and tangled. Now the willow was ready for the earth, but they had no place to call their own, no place where a little girl could plant her willow and watch it grow.

He closed his eyes and hoped for sleep to blot out the sense of frustration and failure that clouded all his thinking. There was only one thing left now—a job in town; and he disliked town, for he was a ranch-born man and he had known only ranches, and a few days in any town left him feeling depleted and like a caged animal wanting to be free.

Still, he would have tried for a town job before now if Judith, his wife, hadn't protested. "Tom," she had said again yesterday, "you'd never be happy at anything but ranching. There might be a chance—"

They had been driving down the highway, away from a ranch house, and he had said, "That was the last chance," not telling her he had practically offered to work for his room and board, not confessing the shame he had felt as he'd stood before the sun-wrinkled rancher and said, "I'm not particular. I'll do anything if you can use me."

The rancher's eyes had taken him apart, and then the man had looked away as though he were embarrassed. "Full up," he'd said gruffly. "No time of year to be looking for a job, young fella."

The rancher had been right, Tom thought. It wasn't the time of year to be looking for a job—not in the ranch country. There was a lot of talk about labor shortage but he knew only too well that this didn't apply to steady men who stayed with ranching year in and year out. It was true there was a shortage of migratory workers—the drifting men who put up hay, picked cherries, harvested beets or dug potatoes. Once, these men had returned yearly, like the birds; now city jobs had absorbed many of them.

But Tom wasn't a drifting man; he was a steady man who wanted to stay put. And now nobody would hire him, for ranchers had their old year-round hands or had hired new ones early in spring. No rancher, he thought with bitter honesty, was going to wait around until the end of June to find a steady man. There was too much work that needed doing. And no rancher was going to hire a man with a wife and kid and let them cool their heels until haying time in August.

He sighed and shifted wearily in the hard bed;

ILLUSTRATED BY DOM LUPO

get more than you bargained for–

IMAGINE A PAIR of shorts with a seamless, roomy seat! Hanes Givvies. Bias-cut to g-i-v-e when you stretch. Fine-count broadcloth. Two comfortable styles in solid colors, whites or stripes. Patented—and Sanforized. $1

TAKE ANOTHER LOOK if you think you have to pay fancy prices for America's favorite T-shirts. Shrink-resistant. Knit from fully combed Hanespun cotton yarns. No-sag neck. $1. Boys' 79c*

AND GET THE LOW-DOWN on Hanes Fig Leaf briefs for a real lift. Double-panel seat. Soft, lustrous cotton for a wrinkle-free fit. Live elastic in waistband and leg openings. 89c*. Boys' 65c*

*Slightly higher in the Far West

And get more than you bargained for—on television!
See Sid Caesar and Imogene Coca on NBC-TV every Saturday night.

get **HANES** UNDERWEAR

P. H. Hanes Knitting Company, Winston-Salem 1, N. C.

FOR 1952 *The*

Typical of 17 beautiful models is this Pinin Farina styled original with matching interior of black needle-point and striped gray homespun upholstery and black vinyl leather. Reclining Seat, Twin Beds, and glare-free blue Solex glass optional. Your choice of three transmissions: Standard, or (at extra cost) Automatic Overdrive or the new Dual-Range Hydra-Matic. White sidewalls at extra cost if available.

On this, our 50th year, we of Nash are proud to present to you our finest achievement . . . *The Golden Airflytes for 1952.*

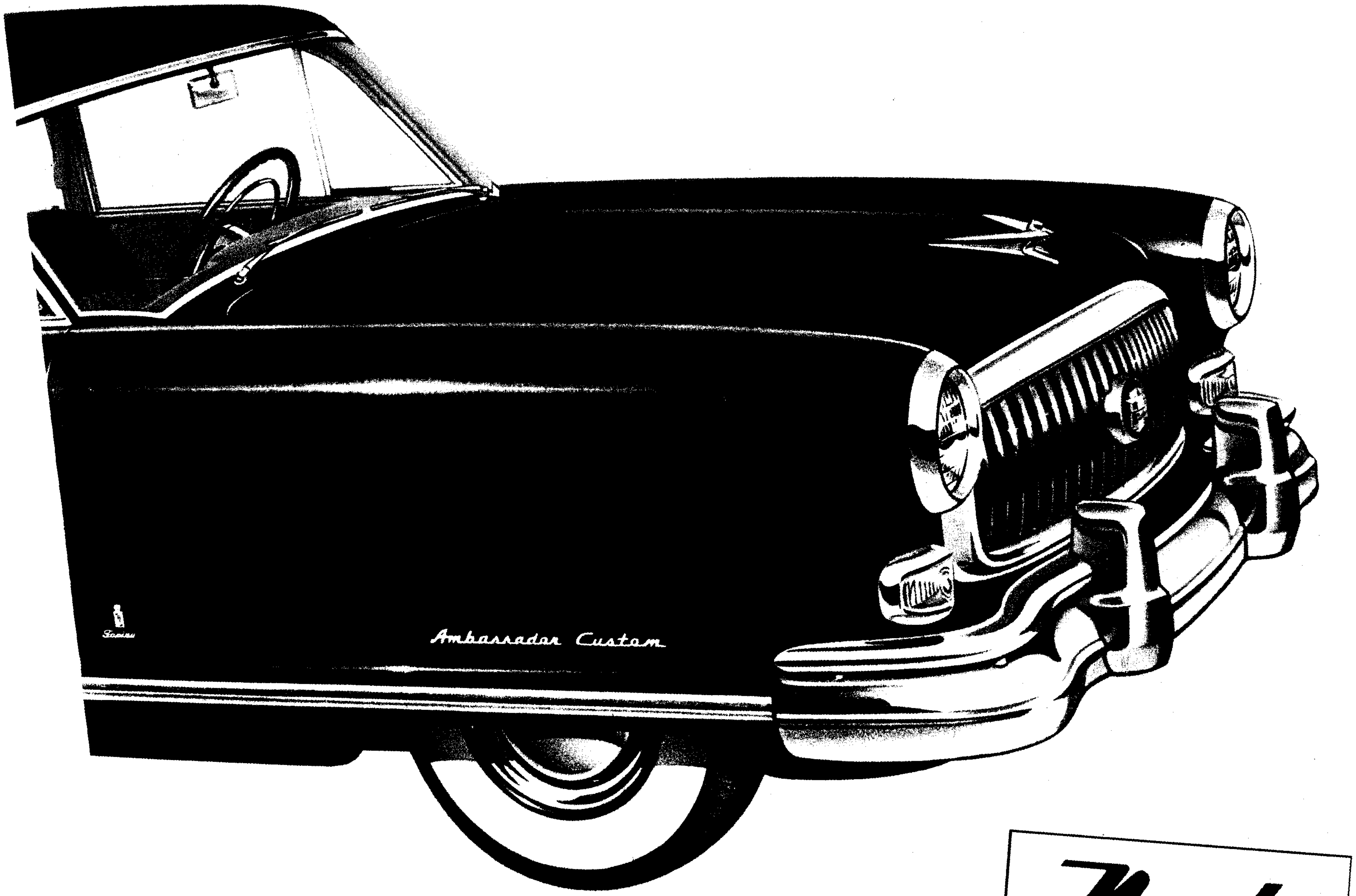
Here are cars more beautiful than America has seen before . . . literally the result of our world-wide search to make this the superlative automobile of our time.

Here, for the first time in America, are the swift, flowing continental lines and the magnificent coach-work of Pinin Farina, world's foremost custom car designer.

To see the fabulous interiors is an unforgettable experience! Each spacious sofa

GREAT CARS FOR FIFTY YEARS
1902
1952
Nash
GOLDEN ANNIVERSARY

Golden Airflytes



can seat four. The interior is automatically heated and ventilated. Around you is the greatest glass area ever designed into an automobile, all positioned to give you complete Eye-Level vision.

Then—to take the inviting wheel—to discover the sheer joy of driving this wonderful car! Its *new* Super Jetfire engine is even more powerful than the one that set last year's stock-car record of 102.46 miles per hour—even more responsive, with its new Direct-Draft horizontal carburetion. Traditional Nash economy, too!

The balance is simply magnificent. The Golden Airflyte hugs the road. It ripples over roughness as serenely as a swan on still water. The handling? That's incredible, too—thanks to another triumph of Nash engineering, Airflex front suspension.

We *don't* want to tell you too much about it because we want you to come in and see it!

We simply say to you, without fear of contradiction—*that these are the most exciting cars in the world today . . . The Nash Golden Airflytes for 1952.*

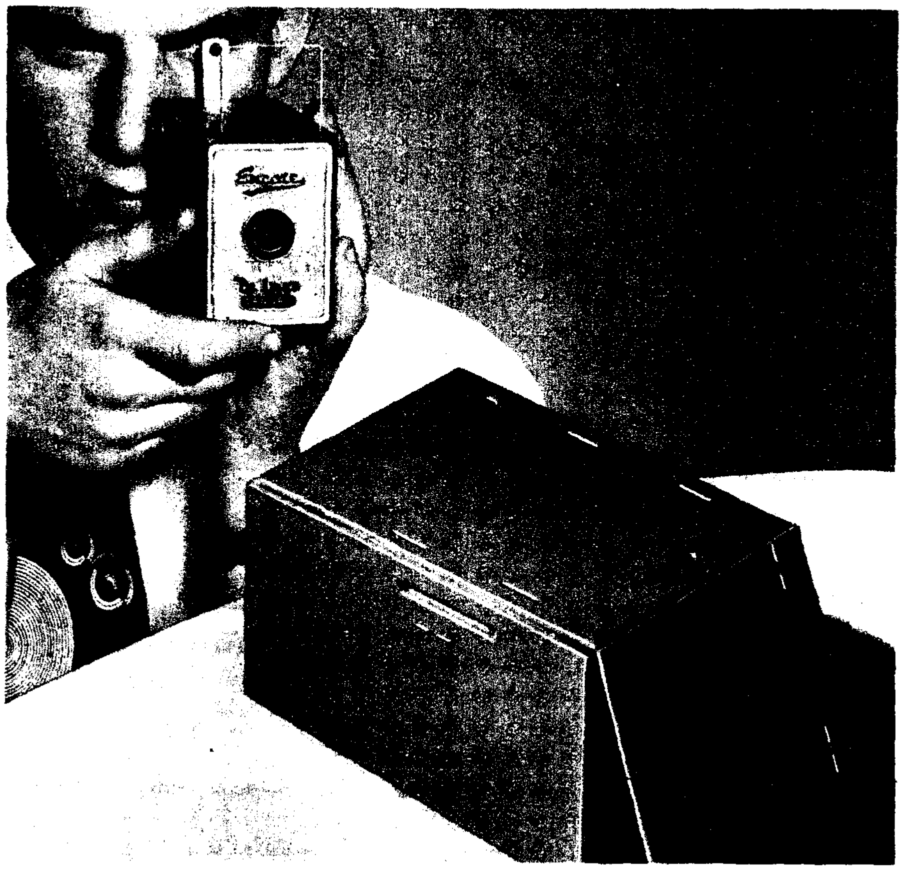
Nash Motors, Division Nash-Kelvinator Corp., Detroit, Mich.

Nash
Golden Airflytes

THE AMBASSADOR • THE STATESMAN • THE RAMBLER
The Finest of Our Fifty Years

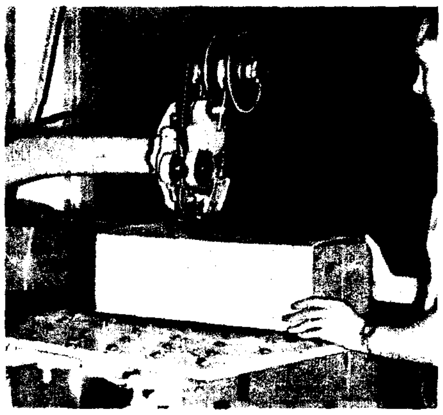
How much can *YOU* cut your fastening costs?

SEE HOW FIFTEEN STAPLES CUT THIS CAMERA'S COST IN HALF



THIS REVOLUTIONARY NEW CAMERA owes its amazing low price to 15 Bostitch staples applied by 5 different models of Bostitch stapling machines. *"Made by any other method, the camera would cost twice as much,"* says its manufacturer. To him, low cost is vital . . . You buy this inexpensive camera already loaded with film and sealed. After taking the pictures, you mail the camera, film and all, back to the maker for photo-finishing. He returns the prints and camera, loaded and sealed for more picture-taking. You see, his costs *have* to be low! . . . If *you* want lower costs, maybe Bostitch fastening can help you, too. Investigate!

FURNITURE MAKER CUTS LABOR COSTS 30% applying ¼" plastic strips to rattan joints. He changed from brass nails to Bostitch T5 stapling tackers. He gets more secure fastening, too.



POULTRY PROCESSOR SAVES 50% sealing master containers. He changed from taping to Bostitch wire stitchers. Staples also hold 100% better than tape in the freezing room, he says.

GET MORE COST-CUTTING FACTS . . . MAIL THIS COUPON TODAY!

BOSTITCH, 338 Mechanic Street, Westerly, R. I.

Please rush me free literature showing which Bostitch stapling machines selected from your more than 800 models can help cut my shipping room costs.

BOSTITCH®
fastens it better AND FASTER with wire

ALL TYPES OF MACHINES FOR APPLYING STAPLES

ALL TYPES OF STAPLES APPLIED BY MACHINES

Name.........................Title.............
Firm...
Street...
City.......................Zone.........State..........

300 Bostitch field men in 112 cities in the United States and 11 cities in Canada offer you ready service.

they had come in the evening to this Wyoming valley bordered by big peaks that thrust against the sky like giant blue teeth. And tomorrow—tomorrow there wouldn't be anything left but a job in town.

Wind played among the cottonwood trees towering above his head, and his hard brown fingers dragged the tarpaulin closer. Like gypsies, he thought bitterly, sleeping along creek banks, begging to live. *I never meant to bring her to this.* Again his hand groped toward his wife. He heard her move, and then her fingers touched his across the sleeping child and her touch was warm and gentle, as though she were saying, "It doesn't matter, Tom." And this hurt him more than ever.

HE KNEW she wasn't sleeping, and he *said softly, so as not to wake Penny,* their child, "I haven't taken very good care of you, Judith."

"I wouldn't say that, Tom. We've had"—she paused —"extra expense."

He knew she was referring to his mother and the years they'd kept her in the sanitarium. It cost a lot to live, but sometimes it seemed to cost more to die. He'd had no choice, and Judith had complained only once. She'd watched him write a check, his fingers holding hard to the scratching pen, and she'd suddenly cried out, "It's not fair! There's Penny and our whole life together and your mother's old and doesn't even know us and—" Then her hand had come up and pressed against her mouth and her eyes had looked stricken.

"Oh, Tom, I'm sorry!"

He hadn't blamed her, for he'd thought the same thing so many times but never said it.

Now her fingers tightened over his, and she added, "And you know, Tom, we haven't had any breaks."

No, he thought, staring at the clean, sharp shapes of the mountains, they hadn't had any breaks. There was that job managing Burk Flannerty's cattle outfit. They'd been there three years and managed to start a very small bank account. Then Burk had sold out and the new owner had brought his foreman with him.

"Sorry, Tom," Burk had said, "but you'll find something."

There was the job he'd got as foreman of the old Simkins place down in Colorado. He'd been trying hard to get on his feet there, for his mother's expenses were draining him dry. Simkins had decided to retire and Simkins' son had taken over.

"Sorry, Tom," the son had said, "but I'll be running the ranch now. You wouldn't be happy being my hired man, not after you've been foreman. But you'll find something. You're a good man."

Then, this spring, his mother had died. He was ashamed of the relief he had felt at knowing he no longer had those bills to meet. After all, he told himself, she'd lain helpless for six years, helpless and not knowing who he was when he touched her hand or spoke her name. But still he felt guilty. A man ought not to be so pushed for money, he thought.

They'd thought everything would work out, until last month when Pete Evans had called him into the office and said, "Tom, you've been a good man, but my daughter's getting tired of town life. She wants to bring her husband back here and run the ranch." Pete had looked past him toward the sagebrush-flecked prairie that ran between the ranch and town. "I don't figure he'll make much of a rancher, Tom, but she's my daughter and I've got to look out for her. You can understand how it is. You better find something, Tom."

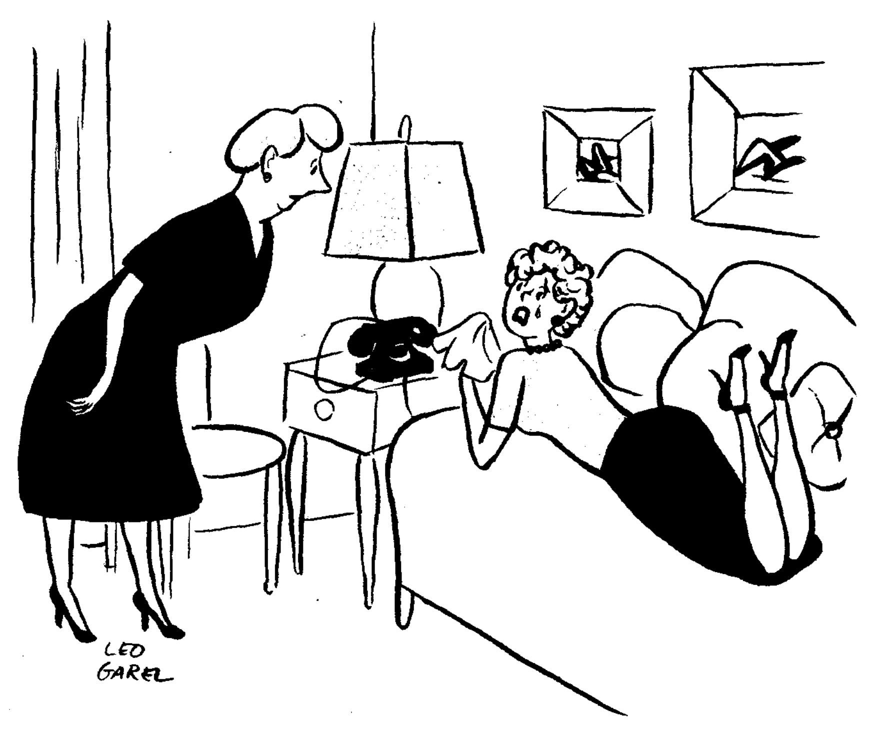
They were practically broke after they'd paid for his mother's funeral and cleaned up the few bills that were left, and it was the wrong time of year to find work. Most ranchers had already hired their steady men. He'd spent what little money he had running all over the country and trying desperately to find a job.

First he'd looked for a place to lease, for that had always been his dream. Then he'd tried to get a foreman's job. Finally, he'd offered himself as a hired man at ninety dollars a month, never daring to think how he'd send Penny to school, never letting himself wonder when he'd be able to buy Judith that new dress she'd been waiting for.

Penny turned, murmuring in her sleep, and snuggled against him. His big arm caught her and held her close with sudden, fierce love. "We'll find a place to plant that willow," he'd promised. Her big blue eyes had shone with adoration and her slim brown hands had held up the willow. "Look, Daddy, it's got long hair of its own."

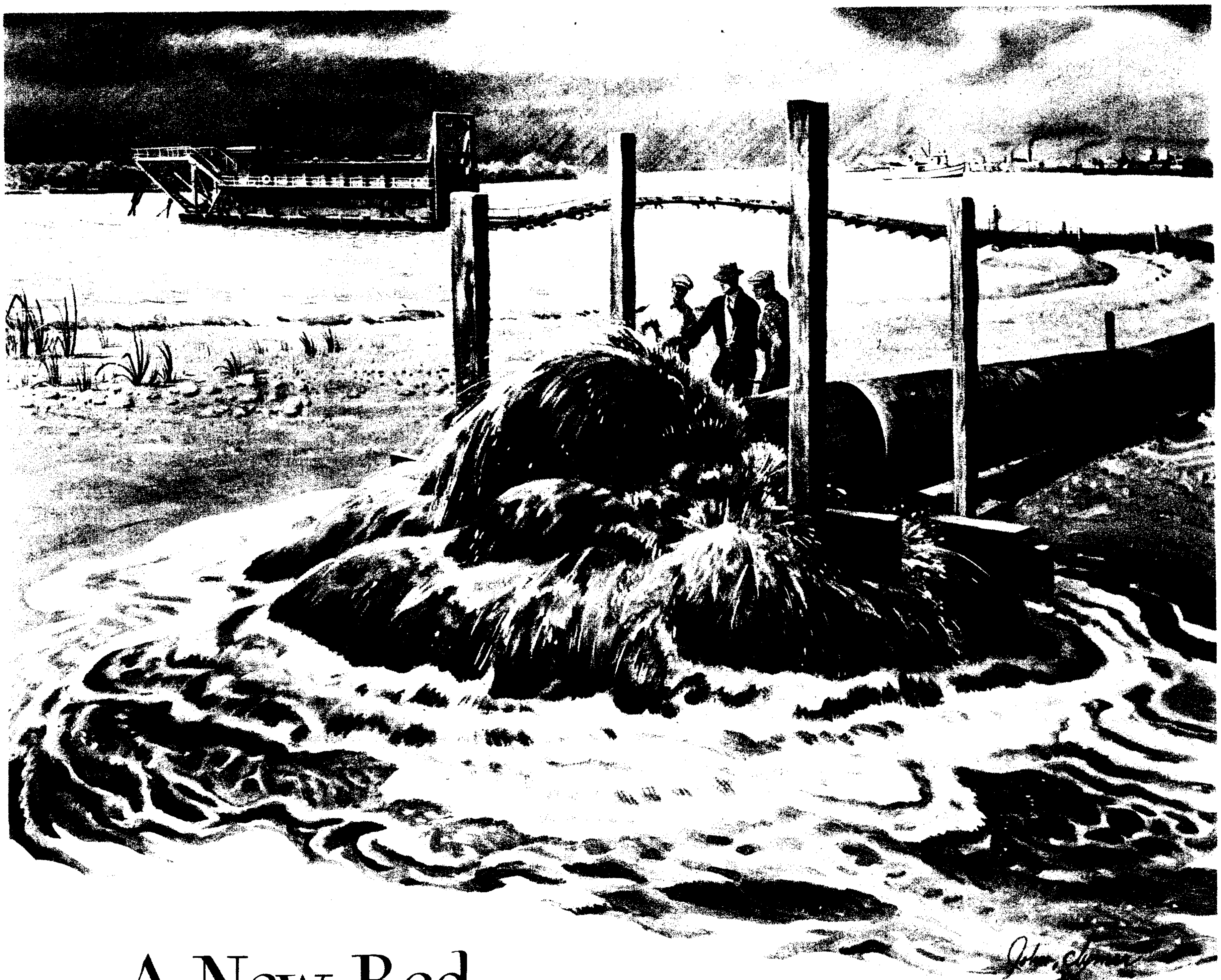
She had a passion for the outdoors and for all living things. Some people had told him he loved her too much, as though such a thing could ever be possible. And it was the same way with him and Judith. His wife, his child—he felt the pain tight in his throat.

He'd failed them and failed himself and he didn't know why. Certainly he had tried—maybe too hard; maybe men saw the naked desperation in his eyes and it made them uneasy. Maybe it would have



"Not only has Jack broken my heart and wrecked my life, but he has spoiled my entire evening"

COLLIER'S LEO GAREL



DREDGES tame wild rivers by gulping tons of mud, sand, gravel ... forcing it through pumps at high speed ... pumping it out onto the surrounding land.

A New Bed for a Restless River

— how "Your Unseen Friend" helps keep the flood from your door

OLD MAN RIVER never rests easy. All year long, he twists and turns in his bed. And, in the spring, he sometimes forgets he's old. He leaves his bed, spreads across the lowlands, floods homes, and sweeps over rich farm lands on which cities depend for food.

When this happens, the flood control experts get busy.

They bring up dredges to make a new bed that's straighter and wider and deeper . . . so the river won't overflow its banks.

These dredges are big and tough and well-designed.

They *have* to be. They must gulp tons of mud, sand, and gravel. Force it up through pumps at high speed. And then pump it out through big, long steel pipes onto the surrounding land.

This calls for tough metal parts. And that's where Nickel comes into the picture.

Sometimes it's used in the cutter heads that chew up gritty silt.

Sometimes it's used in the pumps as well. It may be in the form of Nickel steel castings or Nickel cast iron ("Ni-hard"). But whatever the form, these Nickel alloys have what it takes to stand up to the harsh scraping action of fast-moving sand and gravel.

When you see a powerful dredge making a new river bed, or a big bulldozer clearing off land... when you see the defense products industry is turning out... you can be sure Nickel is working for you 'round the clock.

You don't see the Nickel because it's intermixed with other metals... adding toughness, hardness, endurance, and other special properties. That's why Nickel is known as "Your Unseen Friend."

***For the Inquiring Mind:** Where does Nickel come from—who made this friendly metal useful, valuable? How is it possible to raise tons of ore thousands of feet and produce Nickel for your ever expanding world of wonders?*

This romance of men, mines, and machines, of developing resources, is in your free copy of "The Romance of Nickel." Write, The International Nickel Co., Inc., Dept. 569a, New York 5, N. Y.

©1951, T.I.N.Co.

The INTERNATIONAL NICKEL COMPANY, Inc.

INCO TRADE MARK Nickel ...Your Unseen Friend

been better if he'd stooped to ask Judith to go back to her parents, who thought she'd married beneath her, being a college graduate and taking up with him when he was jingling horses on a dude ranch. He hadn't felt beaten then; he'd been bold and sure of himself, for he'd had a little money saved and he'd figured someday he'd have his own ranch. And he'd known then he couldn't live without Judith.

He'd tried to read more after they were married, tried because she had the college degree and he didn't, but he wasn't much for books. It seemed they were only a pale shadow of the real things he knew, and it was his way to read the land and all that was a part of it and to draw his simple knowledge from this. And finally Judith had said, pressing her face against him and holding him tightly, "Tom, don't try to make yourself over. Reading isn't everything; a college degree isn't everything."

"I want Penny to have it," he said. "Four years at the best college we can find."

And now, now he had ten dollars in his pocket and no job, and they slept on the ground like gypsies.

He was still awake when the light began to thin in the east and the shapes of the mountains moved closer, the mists trailing out of the canyons. Then, at last, his burning eyelids closed.

WHEN he woke up, they were up and starting breakfast. Penny's blonde hair hung in two neat braids and her blue jeans were clean and she wore a sweater the same rich, brown color as Judith's hair.

They didn't know he was awake, and he watched them, loving them and seeing in his tall, dark-eyed wife, with her fine rounded hips and high breasts, the symbol of all that man has lived and died for, and seeing in his child the promise of the future. It was a good thought and he held on to it, remembering other mornings, mornings when he'd got up in the winter dark to milk cows and Penny had come softly into the kitchen that held yellow-gold light from the kerosene lamp. She was always up early and, while he built the fire for Judith, Penny would put on the heavy coat and old Scotch cap with ear flaps and find her mittens. Together they would go through the snow to the barn, her thin, reedlike voice reminding him of the birds that would come back when the ridges bared off with spring.

"I gave the old cow extra hay last night, Daddy. She needs it so she'll have milk for us. Look at her, Daddy. She's glad to see us this morning." And then Penny would put her arms around the old cow's neck and murmur in her ear.

And when they came back to the house and the good smells of breakfast, Judith would say to Penny, "Honey, you ought to sleep more." Then she would kiss them, and he would forget winter and the long day ahead with the cold wind nagging him while he fed the cattle.

He stretched under the tarpaulin-covered blankets, and the warm thoughts passed away and the harshness of reality came at him and struck hard in the pit of his stomach.

THEN Penny saw him and came running, a tall child for her age, tall and thin and high-strung. Like a well-bred horse, he thought. She fell upon him, pressing her cheek to his and whispering, "Guess what's for breakfast."

He grinned, rubbing the stubble on his chin. "Mmm, let's see. Barbecued hens' teeth."

She giggled. "Try again."

"Scrambled frogs' tails."

"Oh, you silly!" And she began pounding him with her fists.

It was an old game and one they'd played many times and always enjoyed.

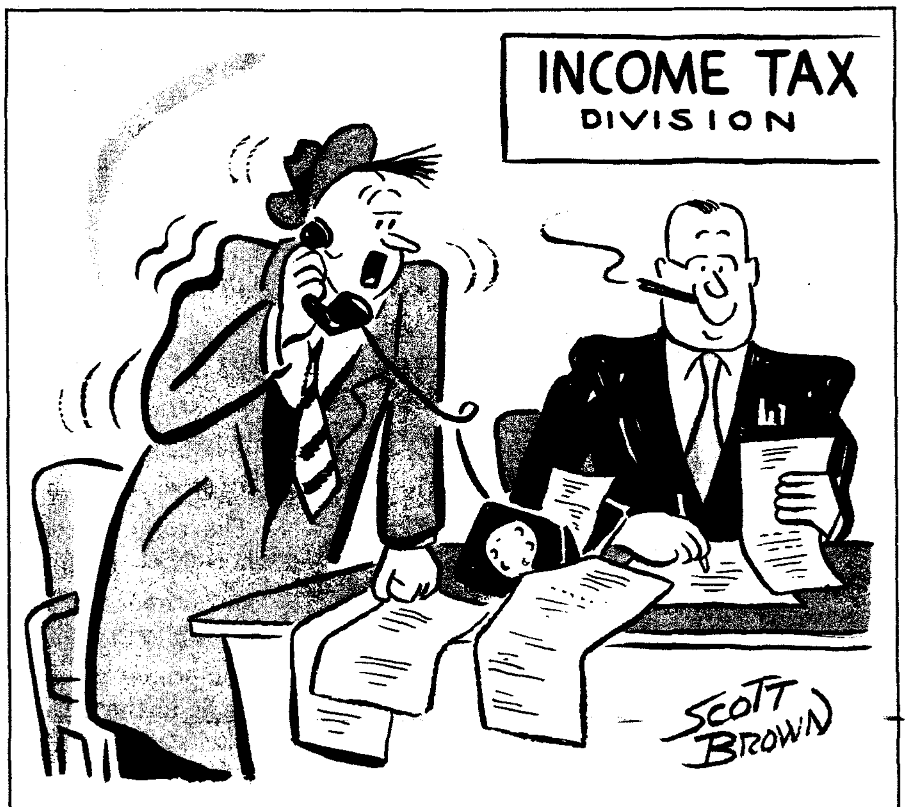
He got up then and struggled into his clothes. He found his shaving kit in the car and he went down to the creek and washed and shaved. Then he came to his wife and put his arms around her and held her.

Over her shoulder, he saw she had a card table set up in the dew-wet grass and a clean cloth spread over the table. There was a tin cup in the center of the cloth and from the cup a spray of blue gentians nodded in the small morning wind.

She always makes something out of nothing, he thought. And he felt the clean, hard strength of his wife resting there in his arms, and for a moment he forgot his daughter. He was kissing Judith when he felt the tugging at his leg and looked down. Penny was laughing up at him, her crooked baby tooth glinting in the morning sun.

"You women," he said, making his voice light, "sure beat me to the draw this mornin'."

Judith broke away from him and started



"Grab the kids' piggy banks, all your old purses, look for coins in the upholstery, pawn your watch, rings, and my shirt studs, and don't ask any questions . . . just get down here"

COLLIER'S

SCOTT BROWN

RENAISSANCE
FLORENTINE
EGYPTIAN
BYZANTINE
ROMAN
GREEK

nothing newer than these Ancient Patterns on

Van Heusen ties
REG. T. M.

Whether she's a Cleo or a Diana, you'll be her shining gladiator forever in Van Heusen Ancient Pattern ties. Authentic motifs go as far back as 500 B.C. . . . on fine jacquards and foulards that stay knotable, stay in shape. $1.50

Phillips-Jones Corp., N. Y. 1, Makers of Van Heusen Shirts • Sport Shirts
Ties • Pajamas • Handkerchiefs • Swimwear • Collars

"YOU DON'T EXPECT to see deer in the tropical settings you pass through on your way down to Key West. When this cute little fellow came darting out on the road ahead of us, we sure were thankful we could stop fast with Dodge 'Double Safe' Brakes!"

DODGE GIVES VACATION FUN AT A SAVING

for the Davis family of Ft. Lauderdale, Florida. On a day's outing—or a whole vacation—their new Dodge gives extra comfort and driving ease—saves money with fewer repairs, long gas mileage

Chet and Virginia Davis drove a Dodge from Canton, Ohio, down to Florida on vacation back in 1949. Liked Florida so well they moved to Fort Lauderdale permanently. And they're still taking Florida vacation trips in a Dodge—with the handsome new Diplomat Sedan they bought in January. Now that Jimmy has taken over their lives, their trips are shorter . . . but their satisfaction with Dodge remains the same.

It's not just the extra safety, the driving ease and comfort . . . the good looks inside and out. The Davises—and thousands more Dodge owners—like the way Dodge dependability saves them money.

Get behind the wheel of a new Dodge and get the thrill of driving this 1952 beauty! And ask your dealer for the free Dodge "Show Down" Plan booklet, that compares Dodge with other cars, feature by feature. Gives you *facts*, not "sell." We're confident you'll agree with Chet Davis that "Dodge gives us more of the features we wanted than any other car."

"A FISHING TRIP for us is just a picnic to Jimmy. Here he is starting already as we unload at Bahia Mar in Fort Lauderdale. Even with all the gear we carried, there's a lot of room left in that big luggage compartment to add a record catch of fish on the homeward trip."

"YOUR CAR GETS A WORKOUT on some of those back roads in the Everglades region. But our new Dodge with Oriflow Ride irons out the worst bumps and ruts. We never have to worry about Jimmy being bounced off the seat."

"THERE'S PLENTY OF ROOM to relax on long trips. And being in the fabric and foam rubber business, we're particular about seating comfort and interior styling . . . two more reasons why we chose another Dodge."

BIG, NEW DEPENDABLE '52 DODGE

the coffee. Penny made toast over the fire. It was burned but Tom ate it and told his daughter it was good and saw her pride.

They took a long time to straighten up the camp and pack their bedding in the two-wheeled trailer back of the old car. It was as though they prolonged the moment when they must drive away.

At last, Penny brought the willow to the car. "You promised today we'd plant it," she said.

"That's right, honey." Tom looked away from the trusting eyes and the tilted nose with the splash of freckles trailing across it.

"Drive on up this valley," Judith said. "We might as well see all of it."

TOM headed the car west, and the valley flowed past them. There were lush hay meadows on either side of the road, and farther back, toward the foothills, he could see ranch buildings—big buildings with red roofs and white sides. It was no poor man's country, but he looked with longing and tried to pretend this valley—or a part of it—might be his. But pretending didn't work, and his mouth felt drier as the miles passed.

"I figure I can pick up some kind of work in town," he said casually.

"But my willow!" Penny's voice was sharp. "You said we'd find a ranch and plant it."

He nodded and said, "This valley's as good a place as any to leave your willow, honey. Wild willow don't belong in town, sitting in a tin basin in an apartment. We'll fix it so you can come and see the willow."

Her expression was doubtful, and he saw her fingers stroke the small green leaves and her face bend toward them.

"We'll go to the end of the valley," Judith said, her face turned away from him.

"Daddy"—the child's voice was uncertain—"what about my horse? I want my horse."

"We'll get him—later," he said, and remembered he hadn't been able to tell her he'd had to sell their horses. It was pitiful the way she loved horses and cattle.

He saw they were coming to the end of the valley, and a cluster of ranch buildings squatted at the bottom of a hill. Behind the hill, the mountains were big and topped with snow. They crossed a cattle guard and were driving through what was obviously a pasture.

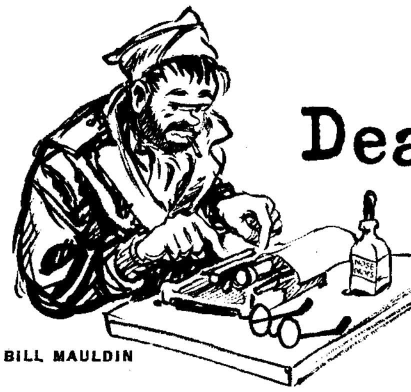
His eyes squinted at the yearling calves grazing along the road. Good calves, the best, and pasturing on thick grass. He felt a hunger to own them. No use wishing, he thought; no use acting like a kid with a penny in his pocket who wants a nickel candy bar.

The car slowed down before a big red gate. Penny jumped out and opened the gate, shouting, "I see a place for the willow!"

Yes, he thought. The end of the road. End of my road, too.

"There!" Penny squeezed into the car and pointed, her eyes big and very bright. And he saw the low, log building and the small creek trickling past it, a building that

Next Week in Collier's



Dear Willie:

Dear Willie,

You'll probably laugh your fool head off when you hear this, but they made me a war correspondent. While you've been messing around catching up on your Saturday-night drinking since we saved the world last time, I got in on this GI Bill and after five years I got a high-school diploma. Then I met a Collier's editor who said anybody my age who was just getting out of high school might have the makings of a reporter.

So they put in for me to go to Korea for Collier's. Well, I had my long johns all packed, but it turns out you have to be checked and cleared by the Defense Department and the State Department and all the security people. They made me sweat it out for two and a half months, until the other day they must have decided I wasn't a subversive type who would throw in with the North Koreans as soon as I got there. I was hoping by this time they'd keep checking me until the truce was settled and there wasn't any more shooting, but you remember I never get any breaks.

I guess they want me to go and do the usual kind of upper-level reporting. Probably editorial-page material. You remember I always had a good mind for that sort of stuff. I always knew why they should have sent the Fifth Army up the Adriatic instead of the British Eighth, and now I've got a chance to show what I can do.

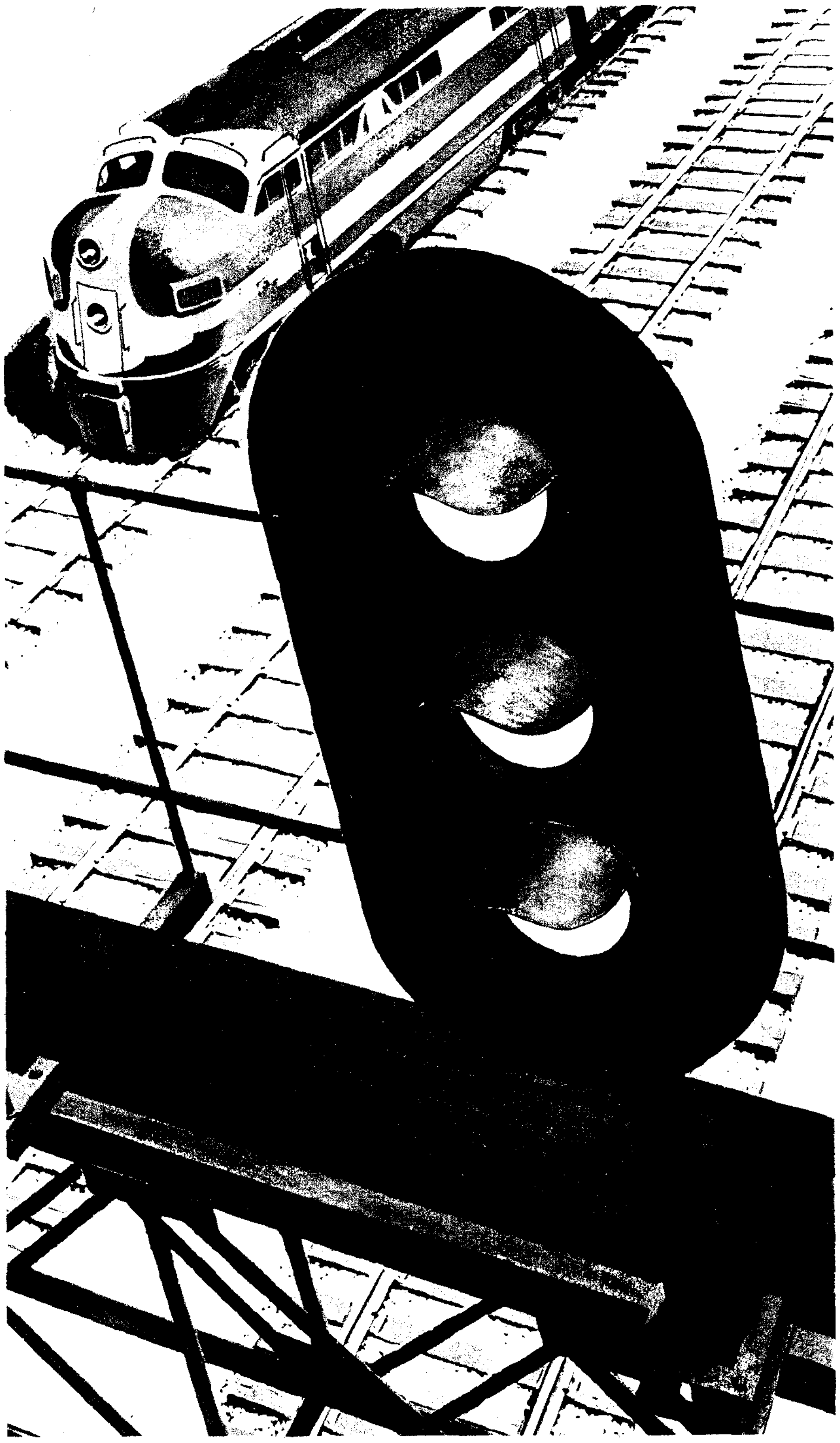
But I will keep writing side letters to you. I thought it might interest you to hear about things there, because I remember when the Korea business started we were talking about how it must be something like Italy was for a while, with nothing to look forward to but the next mountain, colder than hell, and some other outfit getting all the publicity. Only I hear it's worse now, because a man goes on a dirty patrol and never knows if they're going to sign a truce five minutes after he starts out, so he's maybe wasting his time. That could get demoralizing.

I explained to this editor that since you move around so much, always looking for a better job with shorter hours, I couldn't keep up with your address, and before I would give him the benefit of my strategic mind for his editorial page, I made him promise that he would print my letters to you in some out-of-the-way corner of his magazine. You don't even have to pay for the magazine, that's how good a friend I am. Just identify yourself at a newsstand and the dealer will let you read a copy free. If you run across one of my more profound articles while you're looking for the letters, a little education won't hurt you. Look what it did for me. It got me mixed up with the Army again.

Yours truly,

Joe

P.S. That jug-eared cartoonist we used to know is going with me as illustrator and assistant military analyst. He says for the duration of this trip we can refer to him as Hanson W. Mauldin.



ON THE GO

. . . every hour of the day and night, America's railroads are busy bringing you the great bulk of the things you eat, wear and use in your daily life and work.

ON THE GO . . . from one end of the country to the other, the railroads are the nation's *basic* carrier of goods—hauling *more* freight *more* miles between towns and cities than all other kinds of transportation put together.

ON THE GO . . . for the future, too, the railroads are improving and enlarging their facilities to serve the nation's needs with even greater efficiency. To make this continuing investment in America's future, railroads need two things: *materials*, principally steel, for building new freight cars and locomotives . . . and *money* to pay for these improvements. And that money can come only from adequate rates, based on today's higher costs of operation.

Because rail service is a part of every farm, every factory, every business — essential to our everyday life and vital to defense — it is important that the nation's railroads stay strong — able to keep "on the go" for the USA!

ASSOCIATION OF AMERICAN RAILROADS

WASHINGTON 6, D. C.

You'll enjoy THE RAILROAD HOUR every Monday evening on NBC.

Time out for Schlitz

It may take a little time for the lady to decide, but her husband has already made up his mind. He's for Schlitz Beer . . . first, last and always—because it has a light, bright, satisfying taste no other beer has ever matched. Millions of people share this opinion. In fact,

Schlitz tastes so good to so many people,
it's first in sales in the U.S.A.

RADIO HEADLINER: "The Halls of Ivy," with the Ronald Colmans, Wednesdays, NBC
TELEVISION HIT: "Schlitz Playhouse of Stars," Fridays, CBS-TV

Schlitz

The Beer that made Milwaukee Famous

© 1952, JOS. SCHLITZ BREWING CO., MILWAUKEE, WIS.

Proudest kid on the block!

1.50*

SENTINEL
'Diamond' Wrist Watch

● His Sentinel DIAMOND is an accurate and durable All-American man's watch. A no-nonsense, down-to-earth value that "looks like a lot more money" than the modest $4.50* it costs, thanks to the efficiencies in one of the world's great time-piece plants making millions of clocks and watches every year. Handsome chrome finish, genuine leather strap, unbreakable crystal. Guaranteed. (With rolled gold plate front $4.95*)

SENTINEL 'Click' Pocket Watch
Bright chrome finish, unbreakable crystal. Can't be overwound. $2.95* (with radium dial $3.50*)
2.95*

3.67*
SENTINEL 'Little Pal' Alarm
America's best looking and lowest priced small alarm, styled by Henry Dreyfuss. One key winds time and alarm. 40-hour movement, felt-padded base. $3.67* (radium dial $4 14*)

THE SENTINEL
LINE OF CLOCKS AND WATCHES
THE E. INGRAHAM COMPANY
Bristol, Connecticut and Toronto, Canada
*Plus tax. Specifications and prices subject to change.

stood apart from the corrals and barns and bunkhouses, a house that looked down the valley and would hold the sunrise and the sunset in its windows. Farther on, set on the slope of the hill, he saw another house, a two-story house, also built of logs, a big house that had an air of security about it. A broad lawn and flower gardens lay before it.

He pulled up before the smaller log house and stopped. "Nobody living in this one," he said, staring at the uncurtained windows. Still, it was a warm and friendly-looking house, close to the earth, with a tangle of hop vines climbing over the narrow porch.

"Ask up at the big house," Judith said. "They surely won't mind—about the willow, I mean. You stay with me, honey." She put a quieting hand on Penny's eager, restless body, and they sat there in the car while he began to walk slowly up the hill, breathing in the good and familiar fragrance of grass and water and cattle.

He was a big man, over six feet, with hair the same bright gold color as his daughter's long braids, and he carried himself tall and straight, even though the sickness of defeat was heavy inside him.

AS HE went up the flagstone walk that had wild roses blooming on either side of it, he saw a woman sitting in a rocking chair on a square terrace that was built in front of the main door.

She was an old woman, with white hair flattened under a net, and the shoes she wore were big and broad, as though her feet troubled her. She had on a thin, black dress with a high, white collar, and there was an air of neatness and finality about her as she sat there quietly, waiting for him to speak.

"I came to ask a favor," he said, clearing his throat.

"Yes?" Her eyes were small and very black and bright, like those of a bird.

"My little girl, Penny—she's six—wants to plant a willow down there by the creek, the one that runs past the empty house."

The rocker creaked and then was still. "Plenty of willows round here, young fella. Grow like weeds."

"None there, though, by the house," he said, wondering if he was to be defeated again, even on this.

She got up slowly and fumbled for a cane and came out to stand beside him in the sun. He saw then that she wasn't a tall woman and that her face was brown and weather-lined. Been out of doors a lot, he thought.

"Well," she said with a thin smile, "lots of people want to take things away from here, but you're the first wanted to leave something. Mostly they're interested in the fish or in hunting—if it's hunting season."

"It's not my idea," he said, keeping his tone level and indifferent. "Penny's sentimental about the willow. We—she got it the last place we worked, and when we had to leave she brought it with her. I'm on my way to town—some town—and she wants to plant her willow."

"You don't look like a town man," she said, her black eyes studying him. "Lose your job?"

"In a way. We've had to move four times in the last six years."

"Doesn't go good with a man's reputation—having to move so often," she said.

He wanted to defend himself, to tell her the truth. But he set his jaw and kept quiet.

"Campbell's my name," she said, "Sara Campbell. There's a shovel there by the side of the house. I'll go down with you."

He got the shovel and walked slowly so that she could keep up with him. "You've got good meadows," he said, nodding toward the waving grass.

"The best," she agreed. "My husband settled here a long time ago. He's been gone almost as many years as you've lived. Died young. I carry on."

"Noticed your calves as I drove through the pasture," Tom said. "Mighty fine cattle you have, Mrs. Campbell."

"They ought to be," she said. "I pay enough for the bulls."

"It takes good bulls," he said.

They came to the car, and Penny ran to meet them. Sara Campbell put her old, wrinkled hand on Penny's bright head. "So you got a willow rooted in that pail?"

Gravely, Penny showed her the roots, and the brown, impassive face lighted. "Good roots. It'll grow here, all right."

"Come on, let's hurry," Tom said impatiently, anxious to get the thing done and be turning back down the road.

Judith waited in the car, not looking at them, while he dug a hole in the creek bank. "Now fill the can with water," he told Penny. "We've got to plant it wet."

He put the willow down carefully and sorted out the tangled roots and held the willow while Penny poured water around it. Then he began to fill in the soil, working slowly and methodically.

"It won't be lonesome," Penny said quickly, "and I'll come back and see it, won't I?"

"That's right," he said. He stood up, brushing dirt from his knees, and looked at the old woman. "Thanks," he said. Then he wet his lips and added, "Need any hired men this time of year?"

She leaned on the cane, her eyes suddenly as sharp as those of a hawk. "Got more than I need. No future for a man with a woman and child working for wages. You know that."

Yes, he knew. And he'd known better than to ask her for work, he told himself bitterly. He'd known better than let her know the shape he was in. A clever man would have acted big and choosy and would have asked for something big. Still, he couldn't keep from blurting out, his face red, "A foreman—don't suppose you'd need a foreman, would you?"

He had to look at her then and he knew the bleakness was in his eyes and hated himself for not being able to hide it.

Her smile was thin. "I've got a foreman," she said.

He was glad Judith was in the car and couldn't hear what they were saying. "Penny," he said, tugging at his daughter's shining braids. "You go to your mama, honey. I'll be right along."

She went to the willow and knelt beside it to stroke the thin, waving length of it and put her cheek against it. Then she got up and walked slowly to the car.

"We never had any children, Jim and I," Sara Campbell said. "Wonderful things, children."

"Yes." Tom's voice was tight. "If you can take care of them." He picked up the shovel. "Do you want this at the house?"

"Just leave it here for now. I'll have someone pick it up," she said.

"Thanks," he said, and turned toward the car.

"Just a minute, young fella."

He turned to face her, and he felt old and tired and beaten and didn't care any longer what she read in his face.

"You asked about being my hired man or my foreman," she said, her black eyes watching him. "You didn't ask if I wanted to lease the place—to the right man."

He sucked in his breath and set his heels hard against the ground to keep his legs from shaking. He couldn't look at her now, but turned his head and stared at the buildings which blurred and ran together in the bright sunlight.

"I've been waiting a long time," she said slowly, "for the right man to come along, one who cares about the land and the things that grow on the land—like a young willow shoot. There's a bus takes kids from this valley to school in winter, so it wouldn't be hard to take care of the little girl. A lease I'd offer would be for ten years with an option to buy when anything happens to me. The pay would be half the calf crop beginning this fall. That way the right man could start his own herd and have something to keep him rooted. How about it?"

He nodded, unable to find any words that would express what he felt.

"Tell Penny to bring the shovel to the house," she said. "I've got some fresh cookies. And you can start moving into the house there by the creek—if you're ready."

Again he nodded. She made a little grunting sound of satisfaction and began to walk slowly up the slope, bent over her cane.

"Penny!" he shouted. "Take the shovel up to the house for Mrs. Campbell."

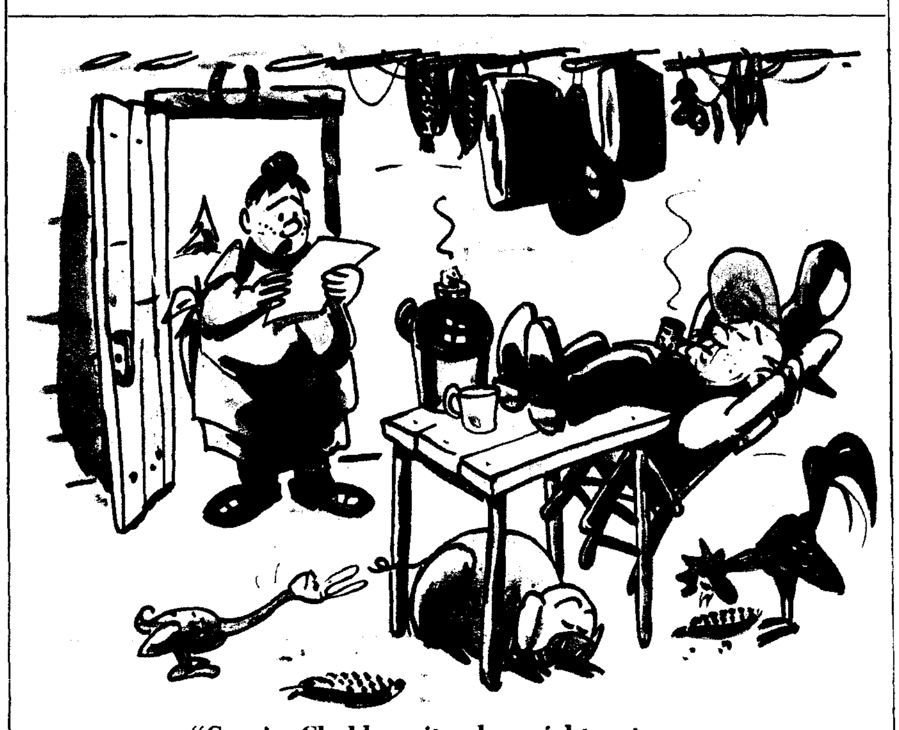
WHEN she had gone, her young colt's legs flying and the shovel in her hands, he turned at last to the car where Judith sat. He could see the outline of his wife's face, the beautiful and proud profile that held so much strength and so much love. He looked at her and then had to look away, for his desire to take her in his arms came up in him like a blinding tide.

He said, still not looking at her, keeping his voice casual. "We'll get our stuff unpacked, Jude. This is where we stay."

There was a long silence and then she answered, matching her tone to his, "All right, Tom."

THE END

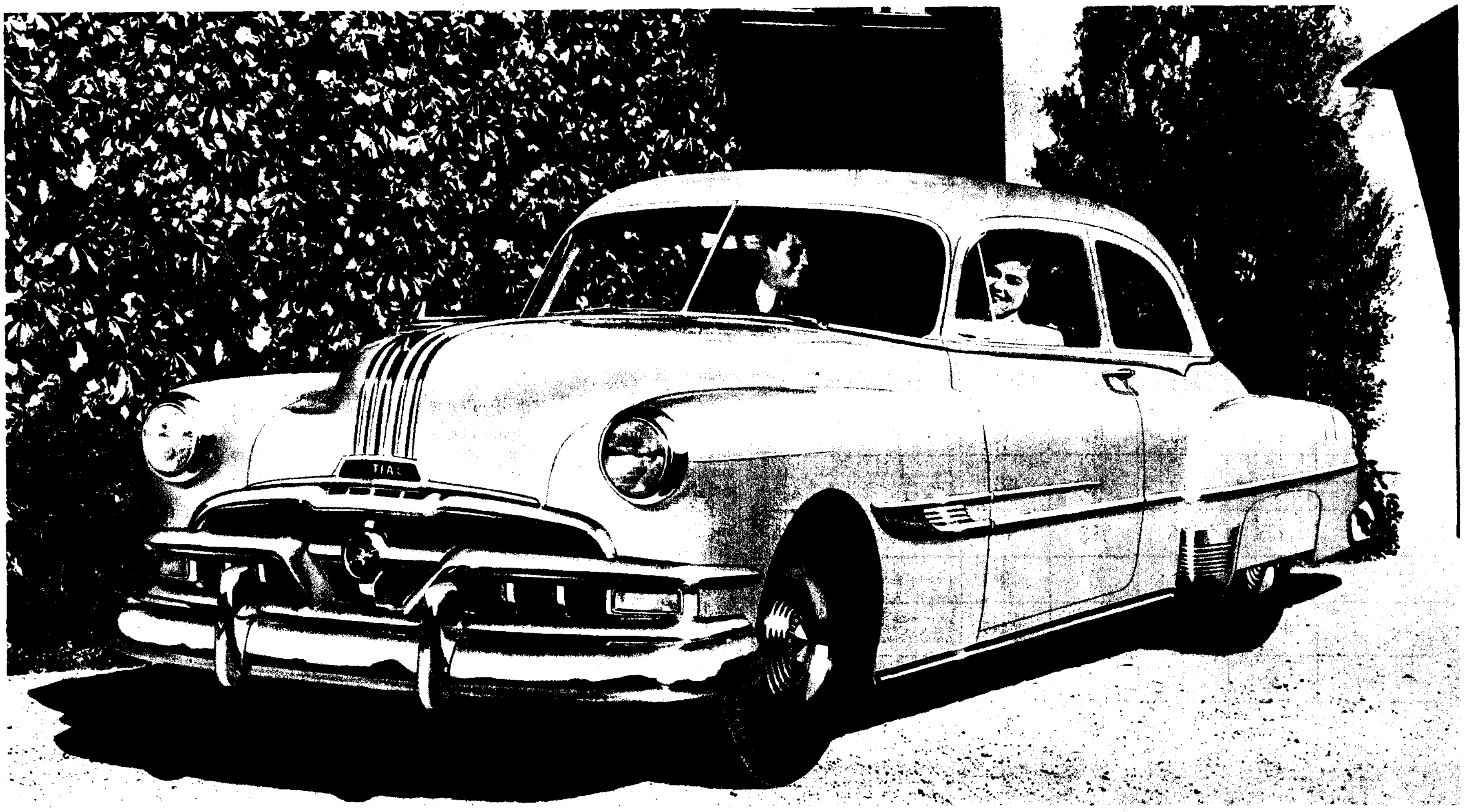
KENNESAW



COLLIER'S

"Cousin Chubb writes he might get discharged from the Army. I was kind of hopin' he would hold this job"

REAMER KELLER



Equipment, accessories and trim illustrated are subject to change without notice.

Drive it Yourself— *the Great New '52* Pontiac

Get behind the wheel and drive! That's the *only* way in the world to know how great Pontiac's *Dual-Range** performance really is. At the flick of a finger you can choose your power: Nimble, eager pep for relaxed driving in heaviest traffic—or smooth, easy-going, economical cruising when you're on the open road. Driving a new Pontiac is like having *two* power plants at your finger tips!

See your Pontiac Dealer—Drive a Pontiac yourself and discover new proof that DOLLAR FOR DOLLAR YOU CAN'T BEAT A PONTIAC!

**Optional at extra cost.*

A Spectacular Performer!

POWERFUL HIGH-COMPRESSION ENGINE

NEW DUAL-RANGE HYDRA-MATIC DRIVE*

NEW HIGH-PERFORMANCE ECONOMY AXLE

PONTIAC MOTOR DIVISION OF GENERAL MOTORS CORPORATION

Before you buy any TV make this point-by-point comparison of value!

CHECK ALL THESE FEATURES	ARVIN Dual Power Custom 17" table model	The 3 present top-selling makes of TV			Means THIS to YOU:
		Make "A" 17" table model	Make "B" 17" table model	Make "C" 17" table model	
Number of tubes (including rectifier tubes and picture tube)	26	23	21	23	More tubes mean more power and greater range.
Tone Control	YES	NO	NO	NO	As much treble or bass as you want.
Local-Distance Control	YES	NO	NO	NO	"Distance" uses full power to pull in remote stations. "Local" subdues strong signals to prevent distortion.
Keyed Automatic Gain Control	YES	YES	YES	NO	Checks "airplane flutter" and other electronic interference.
Number of Rejecting I.F. Traps	7	5	0	3	These trap circuits reject interference.
I.F. Circuit	41.25MC	41.25MC	21.25MC	21.25MC	Intermediate Frequency Circuits in 41 megacycle spectrum minimize interference, facilitate UHF conversion.
Video I.F. Stages	4	4	3	4	Four picture I.F. stages provide extra sensitivity and selectivity.
Phono-Jack	YES	YES	NO	NO	Permits connecting record player.

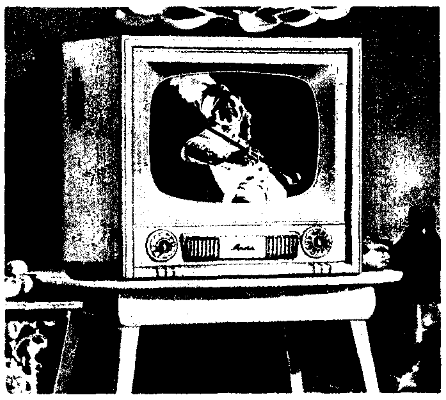
Arvin *DUAL POWER* **TV**

outperforms all 3 present top-selling makes!

By actual comparison, Arvin has more tubes, more power, more features than the 3 present top-selling makes of TV. Like a powerful magnet, the Arvin Dual Power Custom TV pulls distant stations closer, brings the wonders of television to many areas where reception has always been difficult or impossible.

BIG 17" AND 21" SCREENS

Arvin's big 17" and 21" rectangular tubes give you *all* the picture. Let you watch comfortably even in broad daylight. And Arvin's greater number of expertly engineered controls and rejecting traps say "No" to "snow," distortion, other interference. You can get Arvin TV with UHF tuner built in (at moderate extra cost).



FIVE TABLE MODELS

Arvin offers five fine table models, three with 17-inch picture tubes and two with giant 21-inch tubes. Above is Model 5211TB. All are available with roto-top Tele-Table which revolves for easy viewing from any angle (slight extra cost). All have phono-jack for playing records. And all possess the many proved advantages of Arvin's mighty Dual Power Custom Chassis.

BEAUTIFUL NEW CABINETS

But Arvin does more than just build a powerful, long-range chassis. It houses this power in cabinets of outstanding, enduring beauty. Handsome consoles and table models are offered in a variety of styles in rich mahogany, limed oak, or fine cherry. Screen sizes from 8½ to 21 inches. Prices from $129.95, including tax, plus warranty.

ARVIN INDUSTRIES, Inc.
Columbus, Indiana

"Available Vinson"

CONTINUED FROM PAGE 19

Roosevelt program. Except in 1928, when the Democrats were buried by the Hoover landslide, he never had to worry seriously about re-election.

Vinson's ability to woo the opposition, to get the most out of a group of men pulling in opposite directions, saw its first flowering in the tax-writing House Ways and Means Committee, to which he was appointed in 1931. The post was ideal. First it established him in short order as among the foremost tax authorities in the House. Second, it provided a forum from which no bill could possibly emerge without a long process of give-and-take.

Many Skills Were Required

The end product, which had to be a measure basically satisfactory to both the administration and the lawmakers, could be obtained only by shrewd trading, genial personal relationships, adroit compromising, and generalship of a high tactical order. As chairman of the key subcommittee on internal revenue, it fell to Vinson to push through every revenue act from 1932 to 1938.

This was the school that molded Vinson the politician. As at Centre, he finished with colors flying. His graduation thesis, as it were, was the Revenue Act of 1938. The entire recess preceding the session he had devoted to poring over the tax structure, seeking at the same time to correct inequities and to raise more income. Over the strenuous objection of big business, he had already incorporated the undistributed profits tax into the revenue system, but the Senate had forced a number of compromises in the bill. In spite of the changes, several of which pained him considerably, Vinson spoke for the compromise and invited debate.

After a few minutes, the House dropped all discussion, quickly passed the bill, and used the time allotted for debate to pay tribute to its author. He had just been appointed to the District of Columbia Court of Appeals, one rung below the Supreme Court in the judicial ladder, and this was the chamber's unprecedented way of saying farewell.

The Congressional friendships he made among the Republicans and conservative Democrats have fortified the belief that Vinson is at bottom a Tory. But that is not the way his colleagues explain the phenomenon. Among them he is recognized as a hard bargainer, but a bargainer all the same, a man with convictions but no hard and fast dogma, with a spirit of compromise and a willingness to move ahead slowly, so long as he does move ahead. It was a reputation that built up a deposit of good will that has served him well for years.

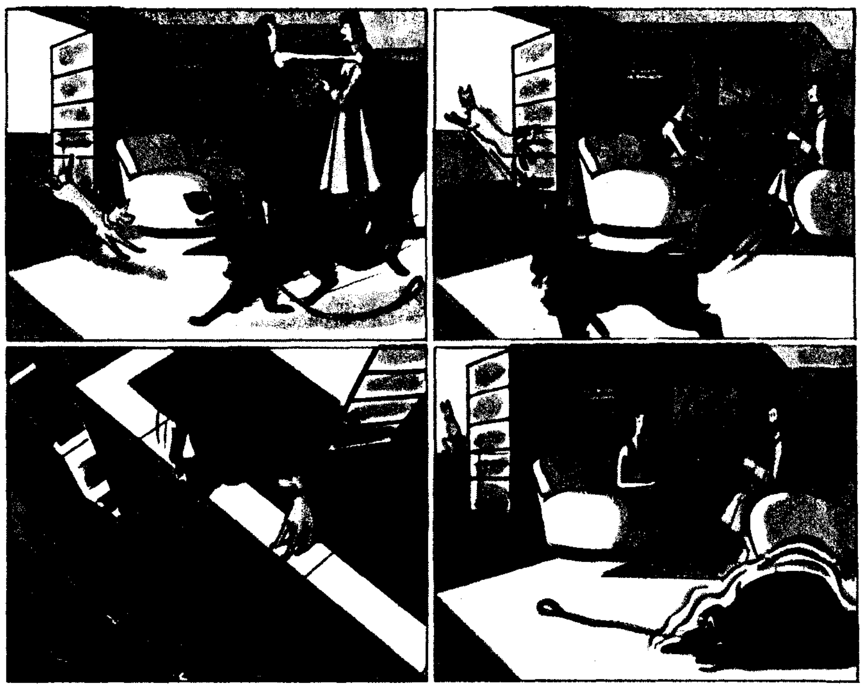
Only recently, Senator Owen Brewster and the late Senator Kenneth Wherry, two of President Truman's bitterest foes, are said to have approached Vinson in an effort to end the running feud between the President and Congressional Republicans in the field of foreign relations. The story, on excellent authority, is that these top Republican leaders suggested that if Truman would replace Secretary of State Dean Acheson with Fred Vinson, they would not only guarantee senatorial confirmation at once, but would promise harmony between the two branches of government in this vital area of policy.

Five years on the Circuit Court of Appeals widened Judge Vinson's horizons and put to a further test his peculiar talent for reconciling conflicting opinion. He was often middleman on a three-judge bench, with one colleague a militant liberal and the other an equally militant conservative.

The procedure, as described by one of his staff, was often something like this: Vinson's fellow judges would quickly take opposing positions based on broad questions of principle. Vinson himself would suspend judgment and set to work chipping away abstractions on both sides, trying always to eliminate whatever might conceivably be regarded as extraneous. When the area of judgment was finally narrowed down to the hard facts of the case at issue, he would make a powerful bid for a unanimous opinion. To a remarkable degree he was successful, and it was this performance that three years later was to make him so appealing a choice to succeed Harlan F. Stone as chief justice on the most contentious Supreme Court in United States history.

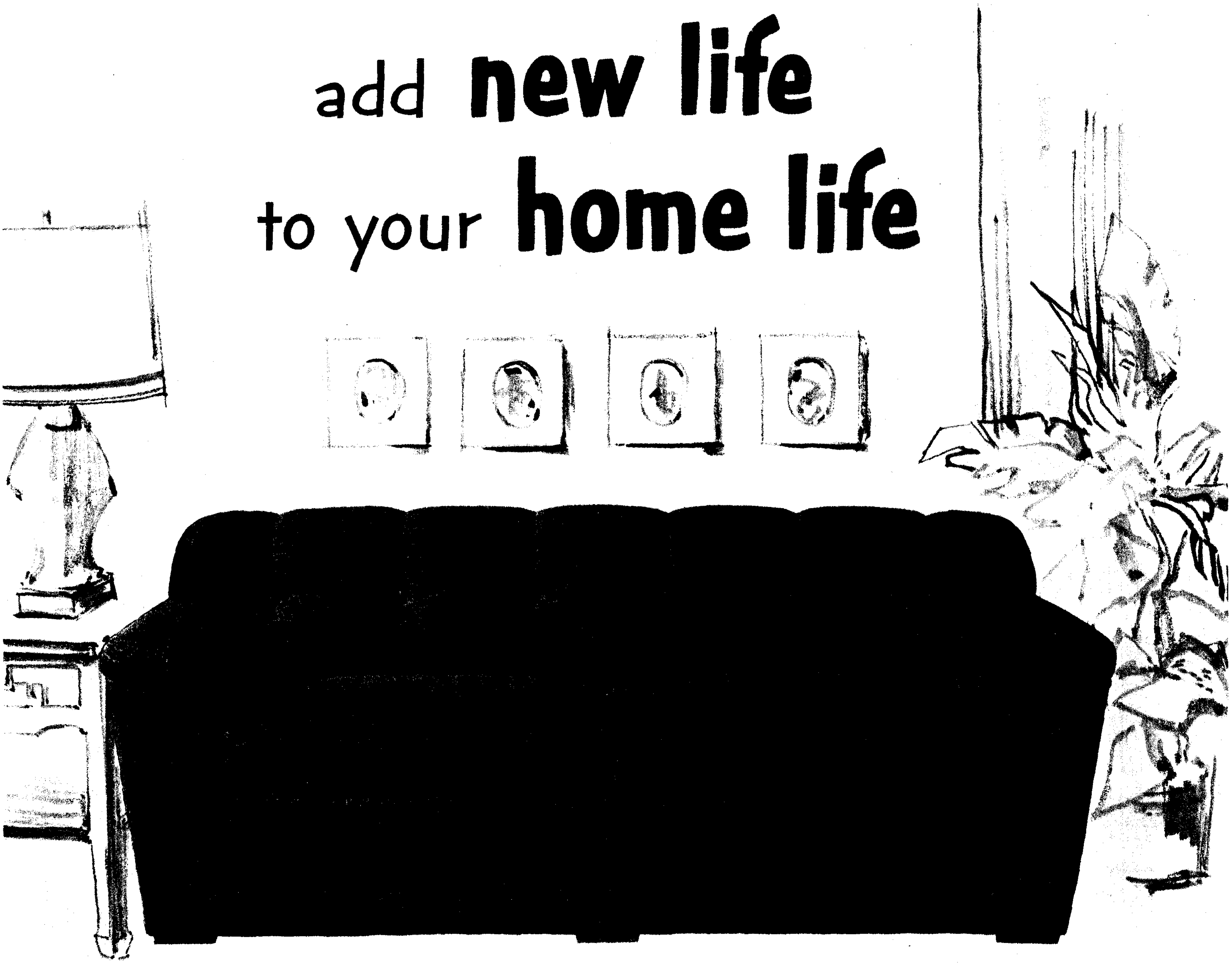
But, before that elevation, Vinson was to endure such a dizzying succession of posts that many Washington observers concluded he was being groomed by Roosevelt as his successor. He hardly had time to survey a job before he was whisked away to another: from May, 1943, to March, 1945, he was Director of Economic Stabilization, having yielded his permanent seat on the bench to succeed James F. Byrnes in that position; then, for less than a month, he was

CLANCY



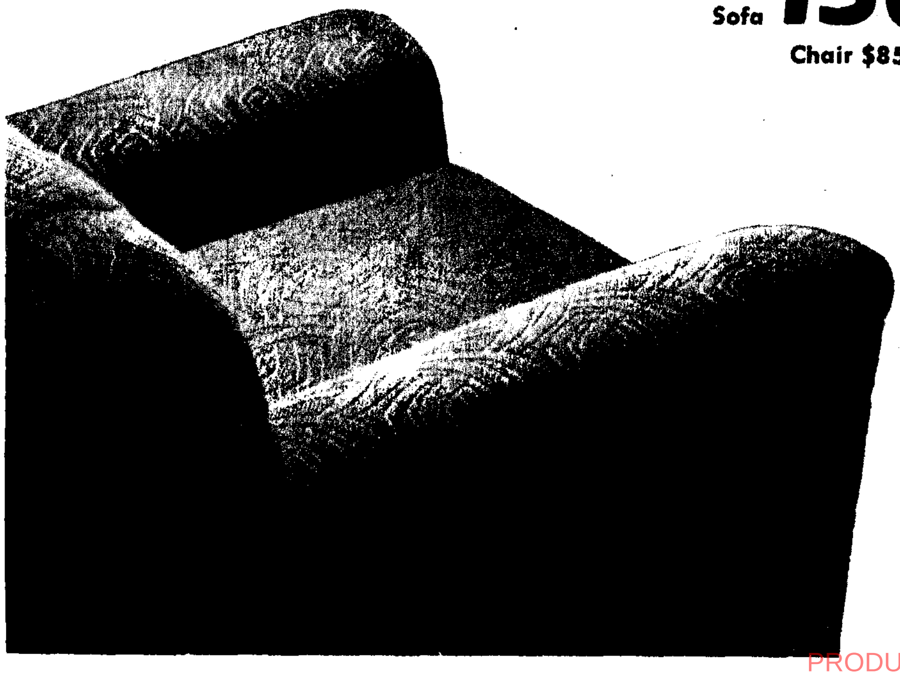
COLLIER'S JOHN RUGE

add **new life** to your **home life**



Here is high style, luxurious comfort—
at a money-saving low price!
Richly tailored in sculptured mohair frieze.

Sofa $150
Chair $85



Something wonderful happens . . . the moment this new Kroehler furniture comes into your home. It's the magic of superb new designing . . . the deft touches of luxury . . . the high-fashion fabrics!

Such practical luxury, too...for Kroehler furniture is Cushionized* for comfort . . . is soundly built for the years ahead. See this New Life value at your Authorized Kroehler Dealer. Discover what a surprisingly low monthly payment will make it yours. Make your living room *sing* with exciting New Life by acting now!

WORLD'S LARGEST FURNITURE MANUFACTURER

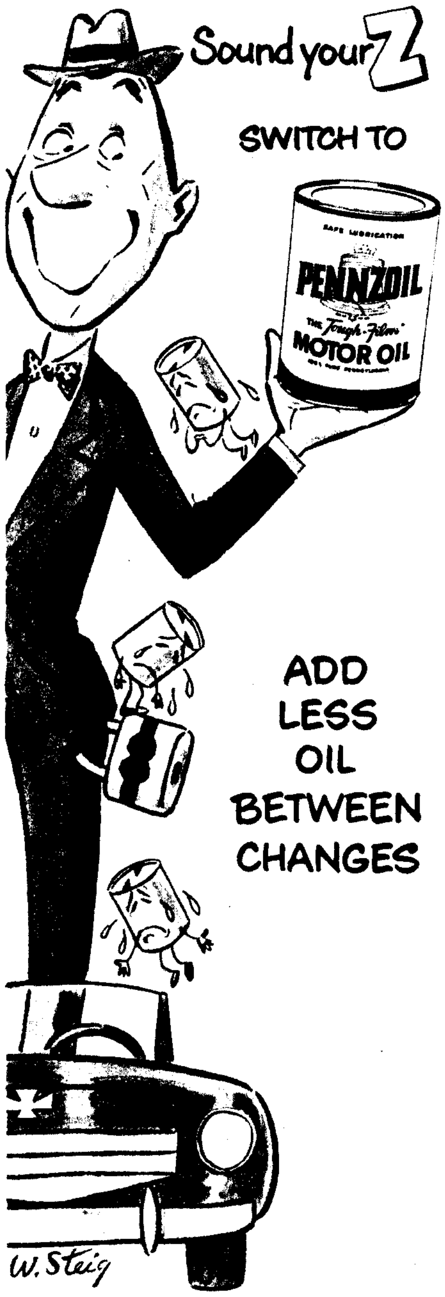
KROEHLER

(Say KRAY-LER)

General Offices: Chicago 11, Illinois • In Canada: Stratford, Ontario

*Reg. U. S. Pat. Off.

DON'T LET ADDED QUARTS PICK YOUR POCKET...


Sound your Z
SWITCH TO
PENNZOIL The Tough-Film MOTOR OIL
ADD LESS OIL BETWEEN CHANGES
W. Steig

It's both annoying and expensive when you have to add oil continually. You'll find with Pennzoil that motor oil quality and low consumption go hand in hand.

That's because Pennzoil is refined from the best, most stable crude oil known—100% Pennsylvania. And Pennzoil has a special tough film that fights sludge, varnish and carbon—that prolongs engine life by safeguarding the valves, pistons and rings.

Your engine uses less oil because Pennzoil keeps it clean and smooth running. Try it once and you'll stay with it!
Switch now..

at this sign... SOUND YOUR Z 100% Pure Pennsylvania PENNZOIL Safe Lubrication

GIVES ALL ENGINES AN EXTRA MARGIN OF SAFETY
Member Penn. Grade Crude Oil Assn., Permit No. 2

PENNZOIL® MOTOR OIL AND LUBRICANTS AT BETTER DEALERS . . . COAST TO COAST

Federal Loan Administrator, succeeding Jesse Jones; in April he became Director of War Mobilization and Reconversion, again succeeding Byrnes; and three months later, President Truman, breaking up the old Roosevelt Cabinet, made Vinson his Secretary of the Treasury. Less than a year later, he was named chief justice.

With each shift, he won unanimous confirmation by the Senate, and generally the vote was marked by such showers of praise as rarely fall on an American politician until the day of his funeral. And, in Vinson's case, the praise came from such opposite political poles as Henry A. Wallace and Senator Robert A. Taft.

Views on "Holding the Line"

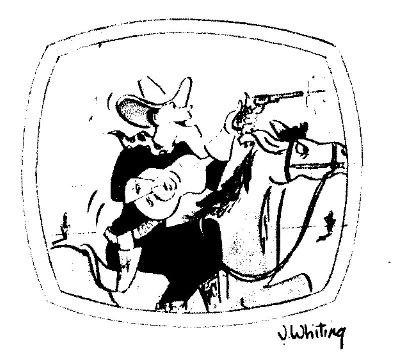
Yet nobody thinks of Vinson as an easy mark. He can scrap, too, and hew to a line. His term as stabilizer in particular revealed him in the role of an exceedingly tough administrator. President Roosevelt's order was "to hold the line" on prices and wages, a subject on which Vinson had some rather strong thoughts. "There are some people who are always for stabilization—*but* . . ." he later explained. "They say they are for price control—*but* they would like to see the law fixed up so as to allow prices to rise on those items in which they are specially interested." And he added, prophetically, "We cannot open the door a little bit, and expect it to stay that way. The door will be wrenched out of our hands, and the wild winds of inflation will sweep through the land."

He did his best to keep the door closed tight, and it was a good best, but it meant saying "no" clearly and repeatedly, even to those who had known him best as a compromiser. He fought the late Harold Ickes, then Petroleum Administrator, when that doughty warrior wanted to stimulate war production with a boost of 35 cents a barrel in the price of crude oil. He fought off the investment bankers, the clothing manufacturers and the canners. He stood off the Railway Brotherhoods when they demanded an eight-cent-an-hour wage increase—the hardest thing he ever had to do, he has since remarked. That was the only instance of the sort, by the way, in which he was beaten, thanks in part to pressure on Roosevelt from a group of senators that included Harry S. Truman of Missouri.

No one gave him a rougher time as Price Stabilizer than the congressmen from the cattle states, and none were handled more adroitly or more characteristically. Shortly before the end of 1944, the meat shortage was reaching the proportions of a crisis. Black marketing was at its peak, and dealers throughout the country were simply refusing to handle meat at all. A price ceiling on livestock was called for, but the mere thought of it nearly produced apoplexy in some quarters on Capitol Hill. Vinson was sent for, but countered by inviting the toughest "cattle-and-hog" senators to call at his office.

They filed in, said an eyewitness, looking dour and determined. Vinson put them through a preliminary softening-up period, maintaining with each an amiable flow of chitchat, recalling the days when he was on the Hill and swapping tales of battles lost and battles won. Then he opened the meeting and proceeded to tell his guests, in detail, the problems he faced and just how he proposed to solve them. He yielded not an inch, but when he was done and had answered their questions, they left like lambs, at least understanding, if not altogether approving, the course he intended to pursue. One of them even paused to remark on his way out, "Fred, I wouldn't want your job for the world."

Ironically enough, it is his present position, the highest attainment of his career to date, that has brought Vinson the least approval, and, some of his intimates believe, the least satisfaction. Even those who admire him most as an administrator do not rate him among the most scholarly jurists of Supreme Court history. Indeed, there is very good reason to believe that he was appointed less for his judicial qualifications than for his recognized ability to produce harmony where none existed.



The Cowboy Hero

To the guys who do wrong
While he's singing a song,
It's just retribution he's giving.

You don't have to sell me,
But maybe you'll tell me
Just what does he do for a living?

—JAMES WHITING

Certainly none existed on the Supreme Court in the few years preceding Vinson's ascendancy. The normal doctrinal differences, with Justices Felix Frankfurter and Robert H. Jackson on one side and Justices Hugo L. Black, William O. Douglas and the late Frank Murphy on the other, had flared into ugly personal feuding. Opinions often carried poorly concealed gibes. The justices were not above directing verbal barbs at one another even on the bench.

When Chief Justice Stone died suddenly in the spring of 1946, the bitterness broke out in Jackson's open tirade against Black. The general belief was that Jackson expected to become chief justice and that President Truman was on the verge of making the appointment when he was persuaded that it would be disastrous to the morale of the court. Jackson blamed Black, although it has since been pretty well established that it was not the Alabama jurist who spoke against him at the White House.

Some observers of the court doubt that Vinson has been able to do anything fundamental to heal the breach, nor was it reasonable to expect it of him. But, superficially at least, there has been more concord in the stately palace of justice since he took over. Perhaps the tensions naturally subsided when a chief justice was brought in from the outside, with neither faction given the victory. In any case, there has been no more of the public backbiting that for a time threatened the prestige of the court.

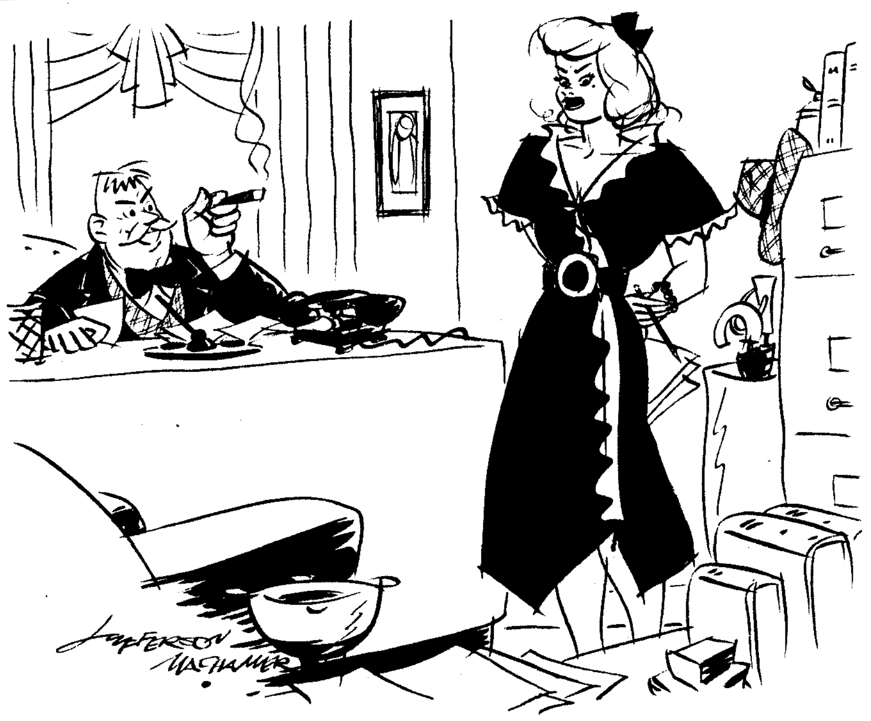
Some of Vinson's old supporters complain of a realignment of forces on the high bench, however, which they hold against him. Where the pre-Vinson court had frequently split five to four, with the liberals representing the minority, the present division often leaves Black and Douglas alone in dissent, in much the way Justices Oliver Wendell Holmes and Louis D. Brandeis dissented 20 and 30 years ago. The disappointment among these critics—and they include labor leaders as well as civil libertarians—is that a judge with Vinson's New Deal record, far from joining the dissenters, has formed a new and more substantial conservative majority.

Trade-union leaders in particular have cooled toward Vinson since his days in Congress, when a strongly pro-union newspaper in New York credited him with "a one hundred per cent labor record." One of his very first opinions upheld the late Judge T. Alan Goldsborough's famous decision against John L. Lewis' United Mine Workers, which resulted in a $700,000 fine against the union and a $10,000 fine against Lewis. And his interpretations of the Taft-Hartley law are regarded by union lawyers as drastic curbs on the right to picket.

Decisions That Cost Support

Certain cases involving civil liberties have cost him additional support among liberals, the most common charge being that he has been overindulgent toward the state in cases involving alleged abuse of the police powers of search and seizure. Those who counted on Vinson as an ardent New Dealer were further dismayed over reports that it was his influence that made a Supreme Court justice of former Attorney General Tom C. Clark, a sad replacement, in their eyes, for the militantly liberal Wiley Rutledge.

On the other hand, Vinson has delivered all that a veteran New Dealer and close associate of President Truman could be expected to deliver in decisions concerning racial equality. He wrote the opinion denying legal enforcement of restrictive real-estate covenants and those in the Sweatt and Sipuel cases, involving the segregation of college students in Texas and Oklahoma. Characteristically, Vinson's court declined to take up the validity of the whole concept that a state does its duty by its Negro citizens when it furnishes them with equal but separate facilities. It sought instead to make certain that the facilities *were* equal. When



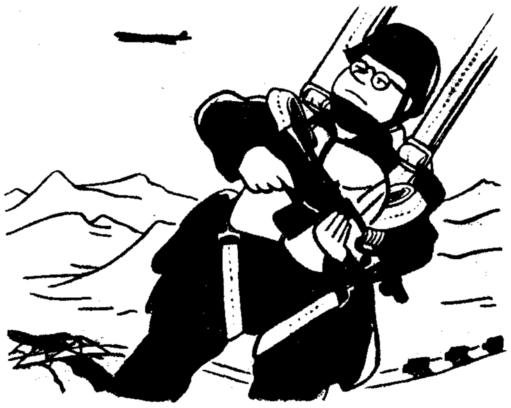
COLLIER'S

"I've been keeping an eye on you, Miss Hartell, and I'm promoting you to where I can keep *both* eyes on you!"

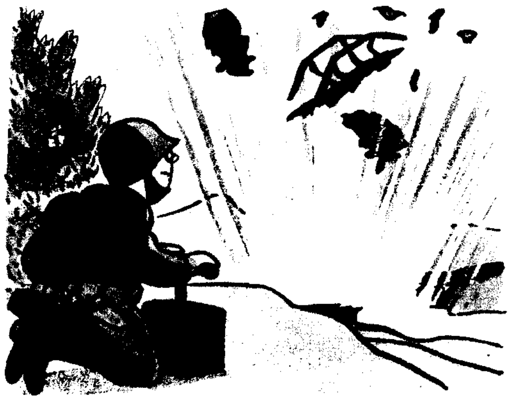
JEFFERSON MACHAMER

Here's how it seems in wishful dreams...

You dreamed you heard the captain say,
"We're counting on you, come what may!"

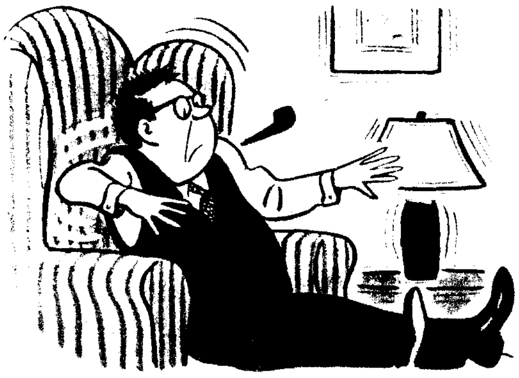


You don't hold back to think or ponder,
You head right for the wild blue yonder!



You fix the charge and throw the switch,
The job is done without a hitch!

but here's what really happens

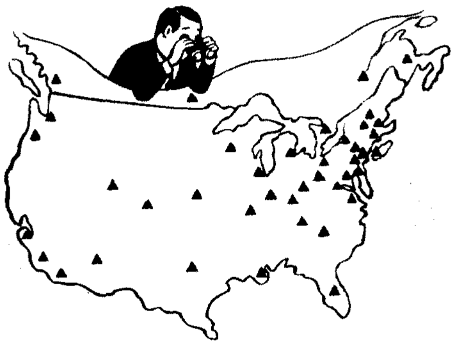


From dreams you wake up with a start—
Was what you heard your quaking heart?

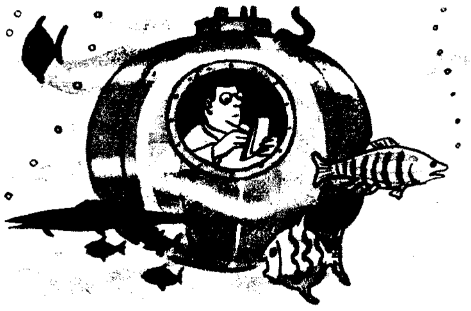
You're rarely warned of fumes below
Until the spark sets off the blow.

Explosions happen every day
If one hits your home, who would pay?

Is your home protected against explosion?



North America's Service Offices, located throughout the United States and Canada, help Agents provide their customers with fast, efficient service, from moment policy is written to claim settlement.



If you have an unusual risk, talk to your Agent about it. The North America Companies have a record for developing many "firsts" in protection that are in widespread use today.

Explosion, from within or outside the house, ranks high on the list of home hazards. Escaping gas, a defective water heater, or an explosion nearby, can cause costly damage to your home.

To make sure you're protected, ask an Agent of the North America Companies to examine your insurance. You'll find the North America Agent careful and dependable, conscientious in his profession. He'll present a plan of protection professionally shaped to your own needs and problems. His advice will cost you nothing extra, but it may save you hundreds of dollars.

Behind the North America Agent and his expert services is one of America's strongest and most progressive insurance groups. If you haven't met him, write us. We'll be happy to introduce you.

Insurance Company of North America, founded 1792 in Independence Hall, is the oldest American stock fire and marine insurance company. It heads the North America Companies which meet the public demand for practically all types of Fire, Marine, Automobile, Accident, Aviation and Liability insurance; Fidelity and Surety Bonds. Sold only through Agents or Brokers.

NORTH AMERICA COMPANIES

Insurance Company of North America
Indemnity Insurance Company of North America
Philadelphia Fire and Marine Insurance Company

1792 ®

PROTECT WHAT YOU HAVE©

1600 ARCH STREET
PHILADELPHIA 1, PA.

ESCAPE
from the commonplace

Enjoy something different...

...try MARLBORO
CIGARETTES

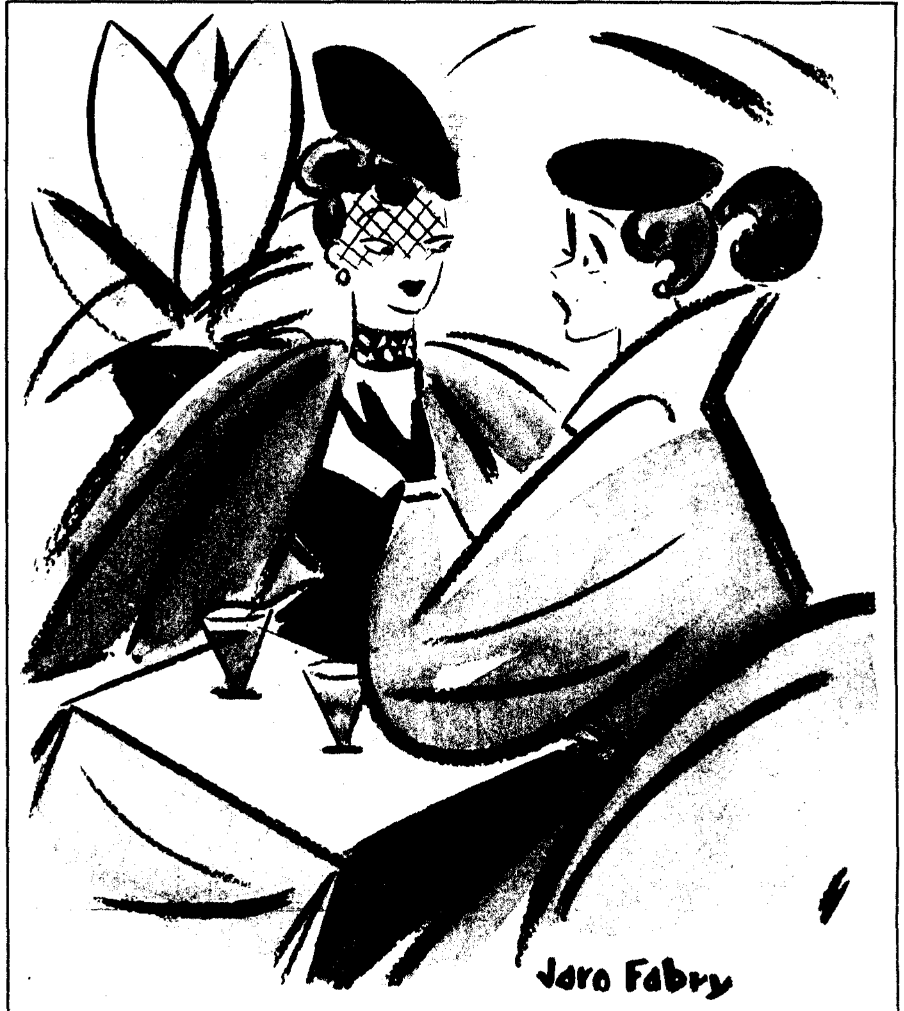
Finer taste, superior mildness—
a luxury in smoking unmatched
by any other cigarette!

When smoking has stopped being a pleasure and becomes only a habit, it's time to freshen up your taste. So if you need a change, *remember*...

MARLBORO
CIGARETTES
PHILIP MORRIS

IVORY TIPS
PLAIN ENDS
BEAUTY TIPS (RED)

MARLBOROS are better in every way
for those who smoke throughout the day!



COLLIER'S "She had quite a difficult time in South America. She thought '*si*' meant '*no*'!" JARO FABRY

it found that they were not, the states in question had no choice but to admit Negro students to what were hitherto exclusively white universities.

The approach was perhaps less fundamental than some would have it, but it was also less explosive and, in practical terms, it was effective. It left the Southern States in possession of a principle, but inasmuch as none of them could afford to set up separate schools of law, medicine and other specialties, all staffed with faculties the equal of those in white schools, the net result has been that Negroes are in fact being admitted to the regular state institutions. Face has been saved, but segregation is being broken down. The compromise is characteristic of the Vinson method.

Reluctant to Run for Office

Naturally, justices of the Supreme Court do not run for political office. Many of them would not even accept a draft, and among these, there is very excellent reason to believe, is Chief Justice Vinson, who refuses even to discuss political questions for fear of compromising his position. But that does not mean he could not step down from the bench sometime in advance of next July's Democratic convention and run as plain Fred M. Vinson, if the pressure on him grew strong enough.

There have been reports that he would be extremely reluctant to take this step. Nevertheless, a number of Democratic politicians still feel that he would be the party's best choice.

On the surface, he would not be an exciting candidate. He speaks soberly, and with a complete command of the facts, stressing the positive aspects of his position rather than the weaknesses of his opponents. His audiences do not go to sleep on him, but neither are they roused, as a rule, to a pitch of emotional enthusiasm.

Some of the shrewdest political experts believe Vinson has a qualification, however, that far outweighs his possible deficiencies. He is what one of them calls the "only universal joint" in the Democratic party, the one potential candidate who can hold together that conglomerate organization and draw strength from all its segments.

In a long career, Vinson has made foes but not enemies, and he has friends in every camp. In spite of his opinions on segregation, he is extremely popular in the South, and his nomination would abruptly end all possibility of a Dixiecrat rebellion. This is obviously an important consideration, in view of the inroads that General Dwight D. Eisenhower would be likely to make in that normally Democratic stronghold should he be the Republican nominee. At the same time, Negro voters, North and South, are considered favorable to his candidacy because of those same opinions.

Organized labor, an important source of Democratic strength, is unenthusiastic about Vinson, but harbors no real hostility and would certainly support him against almost any Republican. Business groups tend to regard him as a moderate New Dealer who knows when to apply the brakes, and many whose claims he denied as Economic Stabilizer have a high regard for him as an efficient administrator. As for the professional politicians, the organization men in the lower echelons, all they ask for is a party regular. Vinson has always been that.

As a candidate, Vinson would have another advantage over any other Democrat who has been named so far. President Truman has promised to stump the country for his party's nominee, whoever he may be, but it is hardly doubted that (unless he chooses to run again himself) it is Vinson for whom he entertains the warmest feelings. The two men are extremely close. The chief justice keeps a discreet distance from the turmoil of politics, but it is widely known that the President frequently consults him by telephone and leans heavily on his advice—not only in domestic matters but in international affairs as well. It may be assumed, then, that Vinson would have the President's most energetic campaign support, and, after the experience of 1948, that is not a factor to be lightly discounted.

Vinson and Truman have much in common, though it does not follow that Vinson would be quite the same kind of

President. Politically, they have the same center of gravity. Small-town men from Border States, of families that knew hard times, both have a natural feeling for the underdog and both have had that feeling molded and directed in the long Roosevelt era in which they rose to eminence. Both revere the late President, but they respond, too, to the conservative traditions of their upbringing and their home communities.

The net result is a slightly variable position ranging from a shade right of dead center to a shade left of it. Vinson is committed to a belief in full employment, with government keeping its hands off when the economy is in full swing but quick to plunge in with compensatory spending when the going is rough. He is a firm upholder of the Roosevelt-Truman program of welfare legislation, and he would be the last to make a fetish of State rights.

A firm believer in free enterprise, he would nevertheless be ready to use a degree of federal power to maintain, when necessary, an ever-rising standard of living. "After the war," he once said, "the American system must be dynamic, with expanding business, expanding markets, expanding employment and opportunity. The American people are in the pleasant predicament of having to learn to live 50 per cent better than they have ever lived before. We must build our economy on that basis." Naturally, the defense program has put a bit of a dent in that prospect, but he has publicly taken the view that if the war itself did not seriously reduce the American standard of living, neither should a defense program.

Vinson is no more the intellectual-with-a-capital-I than is Truman. In spite of his fine scholastic record, he pretends to no carefully worked-out philosophy, but treats problems both in government and in jurisprudence with a pragmatic, common-sense touch. He is not an extensive reader, and an old acquaintance offered the opinion that he would probably prefer a vaudeville show to an art gallery. His diversions are bridge, at which he excels, television, political chitchat, and, above all, the daily sports page.

Like Truman, Vinson is extremely loyal to old friends, but few of them think he would carry that loyalty to the point of minimizing a breach of trust, however minor. He is reliably reported to be extremely disturbed about the current revelations of laxity in the capital, and there is no reason to doubt that he would take a strong hand in cleaning out tainted officials.

Friends say that the most acutely embarrassing episode of his entire public life was the acceptance of one of those deep freezes arranged by President Truman's meddlesome military aide, Major General Harry H. Vaughan. The story is that the freeze was accepted without his knowledge by a member of the family and stored away —there was obviously no use for it in the Wardman Park Hotel, where he lives—and that Vinson first heard of it when the details were broadcast over the radio.

Does Not Arouse Bitterness

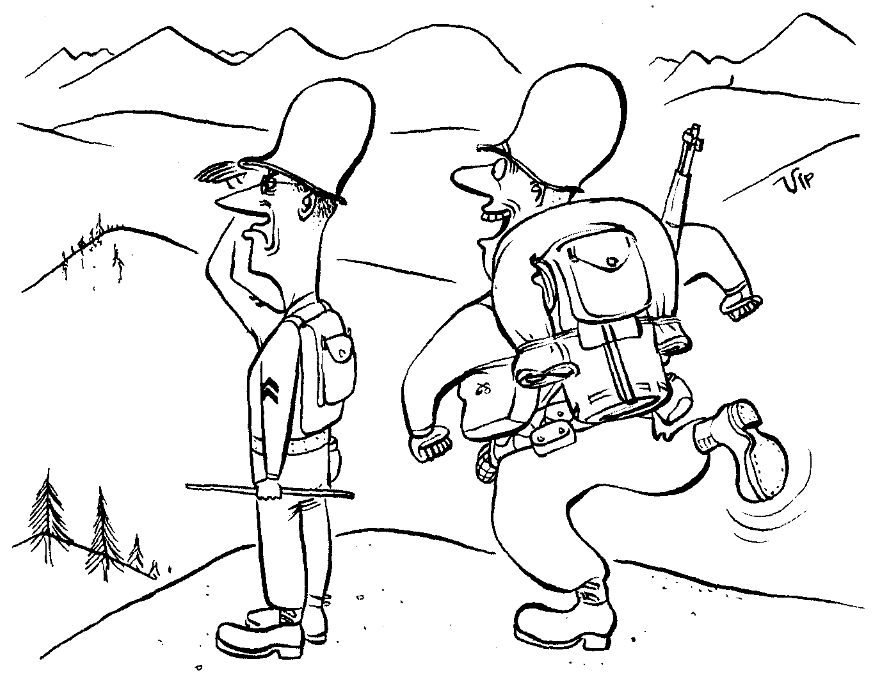
He can be aggressive and determined, as his record in the stabilizer's office showed, but he is not the grudge fighter that Truman is sometimes charged with being. Even Southerners who feel strongly on segregation are not bitter about his opinions in that field, as they are about the President's civil rights program. The explanation I have heard is that they are ready to credit him with an honest effort to read the law as he sees it, whereas, fairly or unfairly, they charge Truman with plain stubbornness, doctrinaire insistence, or downright vindictiveness.

But Vinson has been known to hold a grudge. Kentucky politicians will tell you how he abruptly broke off all personal relations with Representative Joe Bates, who occupies his old seat in Congress. With one vote needed to report the controversial Fair Employment Practices Commission (FEPC) bill out of the Rules Committee (and thus present it for debate in the full House), Vinson, no longer in Congress, tried to persuade Bates to furnish the needed vote. Bates refused, and Vinson has had nothing to do with him ever since. But there are very few such episodes in his career.

On an extremely warm day last July, the elm-lined streets of Louisa were jammed with double the town's normal population of 2,500. Among the guests were three justices of the Supreme Court, two governors, a former governor and a battery of lesser lights—all come to do honor to Louisa's favorite son. In front of what was once the town jail, Associate Justice Stanley Reed unveiled a bronze plaque on a seven-foot stone shaft to mark the birthplace of the chief justice. The Ashland High School band, which had led off with Hail, Hail, the Gang's All Here, wound up, inevitably, with My Old Kentucky Home.

It was a big day for Fred M. Vinson. And, as one old-timer put it, "Why not? He's the biggest thing ever produced in this part of Kentucky." THE END

VIP'S WAR



"Corporal, are you quite sure we're hopelessly lost?"

COLLIER'S VIRGIL PARTCH

SOUTHERN CALIFORNIA

Step into Another World this Vacation!

America's 4-Season Vacationland

This year, take a *complete* vacation! One that will bring you real relief from tension, restore your energies and give you the *lift* that comes from leaving familiar surroundings and stepping into the exotic, sun-soaked world of Southern California. Here, you will...

RELAX IN THE SUN by the shimmering blue Pacific...lie in warm, white sands; splash in the rolling surf, see colorful submarine gardens, sail on quiet bays.

EXPLORE THE DESERT and towering, snow-girdled mountains. Take wide, modern highways through valleys of orange blossoms, vineyards, flowers. Enjoy a whole new world of fun and adventure in Los Angeles County and all Southern California!

Don't wait—come this year!

Too often we put off life's most thrilling experiences until, for some reason, it's too late. So plan now to see and enjoy this colorful new world. Ample accommodations everywhere.

SEE MOVIELAND! Thrill to the world capital of movies, radio and television. Mingle with the stars as you visit famous cafes, night clubs, horse races, golf and tennis tournaments.

CAPTURE THE ROMANCE of foreign lands amid swaying desert palms, historic Spanish missions, a gay Mexican market...in less than two hours, sail to a subtropical island.

FREE—a special travel folder to answer all your questions: what to see and do, costs, time allowances and what to bring along. Complete information for the vacation thrill of a lifetime! Mail this coupon TODAY!

ALL-YEAR CLUB OF SOUTHERN CALIFORNIA, LTD.—*a non-profit community organization serving vacationists. This advertisement sponsored by the Los Angeles County Board of Supervisors for the citizens of Beverly Hills, Glendale, Hollywood, Long Beach, Los Angeles, Pasadena, Pomona, Santa Monica and 182 other communities.*

All-Year Club of So. California, Div. F-3
629 S. Hill St., Los Angeles 14, California
Please send me your free color folder "PLANNING YOUR SOUTHERN CALIFORNIA VACATION."

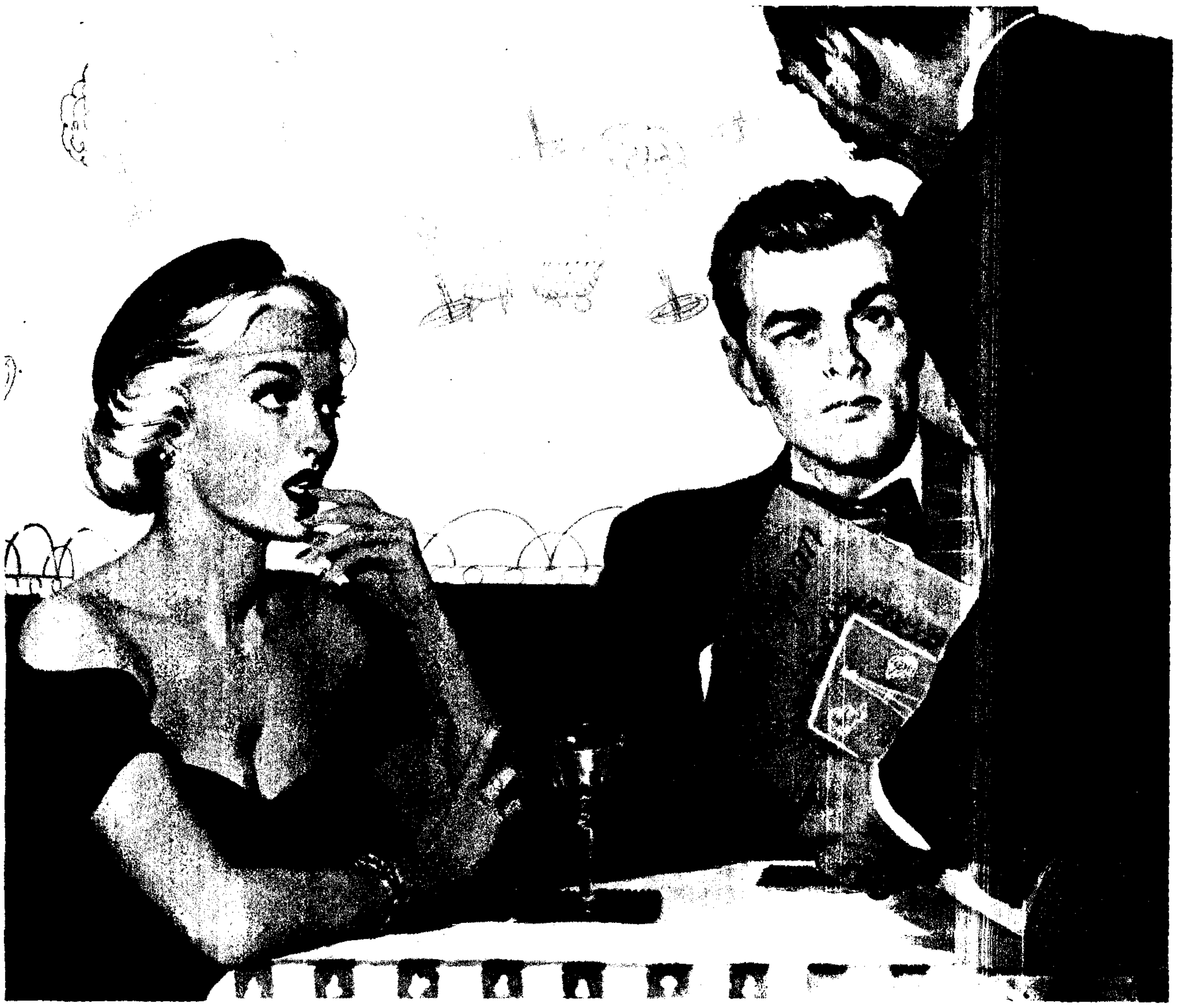
*Name*________________

*Street*________________

*City*____________*Zone*______

*State*________________

PLEASE PRINT NAME AND ADDRESS



LIONEL GILBERT

"You see," Jules said, "every year this table is reserved on May twenty-eighth"

Affair of the Heart

By JOHN WYNDHAM

ELIOT left what he was telling Jean in mid-air. Jules, the headwaiter, was coming toward them, controlled horror on his face. "Excuse me, monsieur," he said, radiating distress. "I am very sorry. A mistake has been made."

Eliot heard him the way he usually heard people until he was accustomed to them. One of the troubles of a practicing phonetician's life is that every chance-heard stranger speaks in a double language: behind the words, he is telling where he comes from, where he was educated, where he lives now. His lips, tongue and teeth are watched to see how he forms sounds. All this is likely to be so professionally interesting that the intended purpose of the sounds is frequently overlooked.

It was so now. Eliot could have told that one of Jules's parents had come from the *Midi;* that Jules himself had been brought up in England; that he could speak perfect English if he liked, but that he kept his accent for professional purposes. What he could not have told was what Jules had said.

Jules went on: "An unfortunate mistake, monsieur. This table. It is reserved."

"Sure it is. I reserved it yesterday."

"But that is the mistake, monsieur. If monsieur and mademoiselle would not mind? There are other good tables. You see, every year this table is reserved on May twenty-eighth. Every year."

"Every year, on May twenty-eighth?" Jean said, her eyes on Jules's troubled face.

"Yes, mademoiselle. It is a standing order."

"Well, *this* year—" Eliot began.

But the girl broke in: "That sounds romantic. Is it?"

"Mademoiselle has guessed. It is an affair of the heart," Jules said.

"I, too, am here on an affair of the heart," Eliot said pointedly.

"That is very easy to understand," Jules said, looking admiringly at Jean.

Jean drew her handbag toward her. "In the face of that, Eliot, we can scarcely refuse, can we?"

Eliot nodded and stood up. Jules beamed. He led the way to another table and saw to their seating there with great attention. "I am so sorry to have troubled monsieur."

"As a compensation, you might tell us something about this Darby and Joan," Eliot suggested. "Wedding anniversary?"

"Oh, no." Jules leaned a little closer. "They are Lord Solby and Mrs. Blayne. It is a famous affair, very romantic, very sad. Mrs. Blayne was once Lily Morveen."

"I've heard of her," Jean put in. "What they used to call a 'Toast of the Town.'"

"That is so, mademoiselle. All the young officers on leave went to hear her sing at the Coliseum or the Empire. They all loved her, but two of the serious ones were Lord Solby—Captain Solby, then—and Captain Charles Blayne. Everybody knew about those two young men. They were great rivals, and they were of the same regiment. The younger people saw that Captain Blayne was gay and good-looking; the older ones said that Captain Solby had a lot more money, and the title. It was very difficult for Miss Morveen.

"Captain Solby brought her here on May twenty-eighth, 1918—it was the last night of his leave—and he asked her to marry him. She told him she could not. She had secretly married Captain Blayne two months before. Lord Solby went back to France, and they said he did not seem to care whether he was killed or not. But it was Captain Blayne who was killed, a few weeks later.

"On the next May twenty-eighth, the war was over, and Lord Solby brought Mrs. Blayne here again. All evening, Lord Solby pleaded with her, but she would shake her head. Lord Solby has become an important man in some big companies, and he speaks in the House of Lords. But he has never married. Every year he brings Mrs. Blayne here, but it is always the same. It is very romantic, very sad, you see."

"Is it quite hopeless?" Jean asked. "Will they never marry?"

Jules shrugged. "Ladies' minds change, but when one has said no for more than thirty years—" He broke off. "Excuse me, mademoiselle, monsieur." He moved quickly toward the front of the restaurant. A moment later, he reappeared, leading a couple toward the table Eliot and Jean had vacated. The man was tall and thin, with an ascetic face and silvery hair. The woman was carefully tended. Her face was smooth; her fair hair looked natural. She carried perhaps a little more weight than she wished, but it was easy to re-create her former prettiness.

Jules bowed them into their seats and summoned the table waiter with an imperious flourish.

Jean studied them. "You can see *he's* had a sad life," she said. She watched Mrs. Blayne arrange herself with calm assurance, as though she were unaware of the eyes upon her, and smile at her escort. His attempt to return the smile was bleak.

"It's not fair," Jean said. "After she said no she should have cut it clean—if she meant it."

"She seems to have meant it," said Eliot. "Maybe he's the kind of guy that just doesn't know the word." He was not much interested in the couple. First they had taken his table; now they seemed to be taking all Jean's attention. She kept glancing across the room and responding with a bright inappropriateness to some of his remarks. She cut right across one to say: "Look! I think they've got to it. I'm sure he's proposing now."

Eliot looked over irritably. He watched the man's lips for a moment. "If you'd really like to know—" he began. Then he stopped. He'd always felt that knowledge which reached him through his professional abilities was in the nature of a confidence. Luckily, Jean had not heard him. Her attention was all on the couple. The man had finished speaking and was waiting for the woman's reply with anxious attention. She looked up thoughtfully. She shook her head ever so slightly; her lips moved.

"No," Jean murmured. "She said no."

The woman said something more, slowly and deliberately. A gray, pinched look came over the man's face. For several seconds, he looked at her without moving. Then he stood up, bowed slightly, and walked out of the room.

Jean's hand clenched on the table. "It's too bad, too bad! All because of a man who's been dead thirty years. It's *wrong* of her."

"It's not our affair," said Eliot, and he did his best to change the subject.

FROM somewhere outside came a sound like a door slamming. Jules, looking disapproving, hurried to investigate. A minute or two later, he came back, his expression too bland to be true. Unhurriedly, he made his way to the corner and spoke to Mrs. Blayne. She collected her belongings calmly, and followed him out.

When he reappeared, Eliot beckoned him over. "Lord Solby?" he inquired in a low voice.

"A slight accident, monsieur," Jules said.

"I know the sound of a pistol when I hear one. Is he dead?"

Jules leaned closer. "Yes, monsieur. But please—"

"Okay. We won't mention it."

"Thank you, monsieur. Not good for business, you understand." He moved away.

"Oh, dear," Jean said, inadequately. Eliot poured her some wine. She drank it gratefully, and set the glass down with a shaky hand. "I didn't know men could love women as much as that," she said. "Thirty years of hoping, and then this! If she couldn't love him, she should have sent him away."

"Uh-huh," said Eliot. If he had been in any other profession than the one he was in, he might have made a more satisfactory comment. But the last thing his trained observation had understood Mrs. Blayne's lips to say was: "No, John. I feel like settling down now. It'll probably cost you a lot less, too, when you do marry me. Remember, I still have only to tell them what *really* happened to Charles in France . . ."

Leadership demands constant achievement

NINE OUT OF 10 JET FIGHTER PILOTS TRAIN IN LOCKHEED JETS

3 U. S. MILITARY SERVICES AND 9 OTHER NATIONS CHOOSE THIS RELIABLE JET TRAINER

IN AIR COMBAT at jet speeds, flying skill is all-important. And U. S. jet pilots have it—an outstanding superiority in tactical skill that comes from rigorous, thorough training.

In nearly every instance America's flying sons make their first jet flights and attain their skill in a Lockheed jet—the plane selected as the standard fighter-trainer by the U. S. Air Force, Navy and Marine Corps. Allied pilots, too, are taught modern flying in these famous jet trainers—pilots from Holland, France, Denmark, Norway, Belgium, Greece, Turkey, Portugal, Canada.

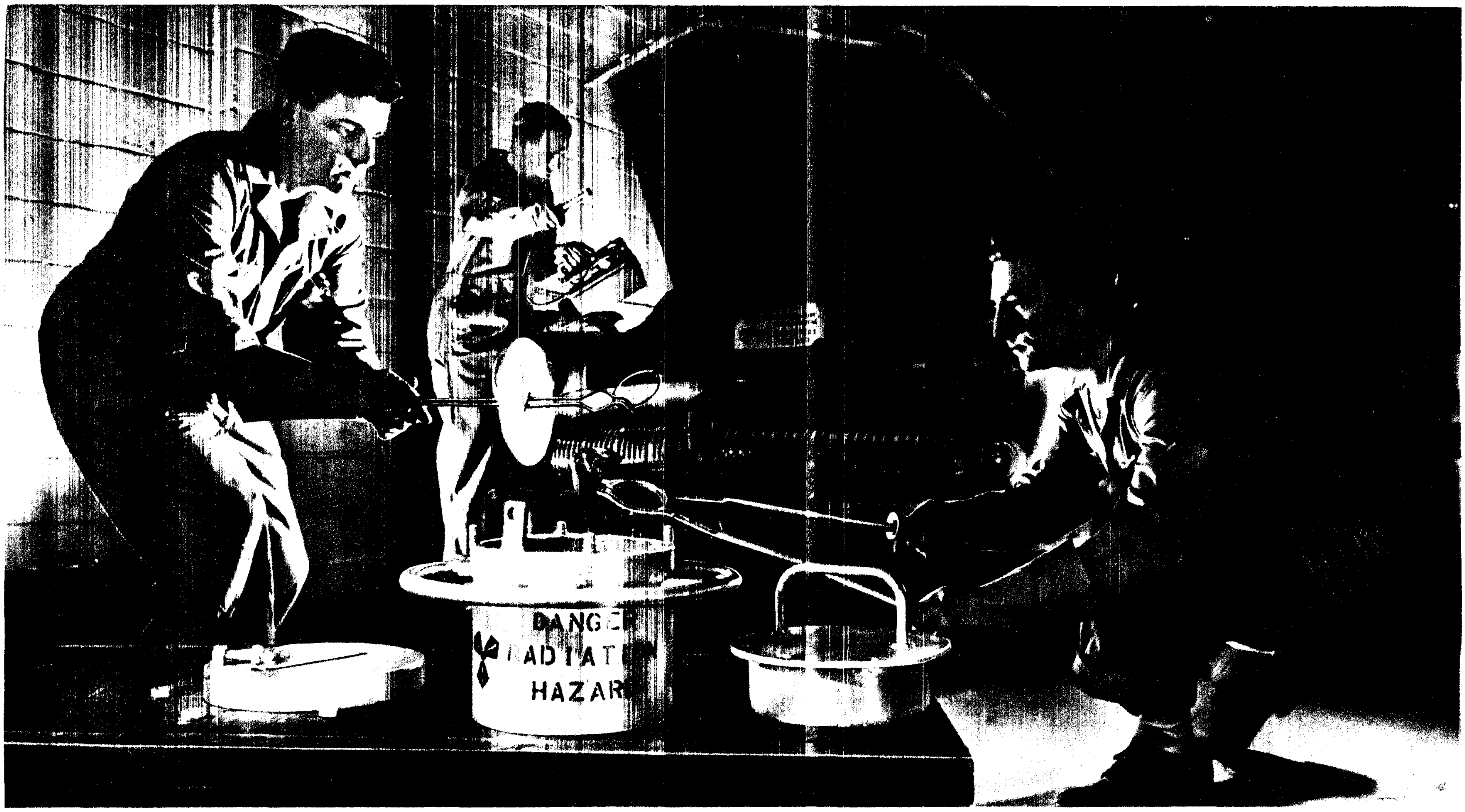
Lockheed developed this reliable two-place jet trainer from America's first jet fighter, the battle-tested Lockheed F-80 *Shooting Star*, proven for reliability in Korea.

America can be proud of the high standards of U. S. training, and Lockheed is proud of contributing the airplanes used to train the world's finest jet pilots.

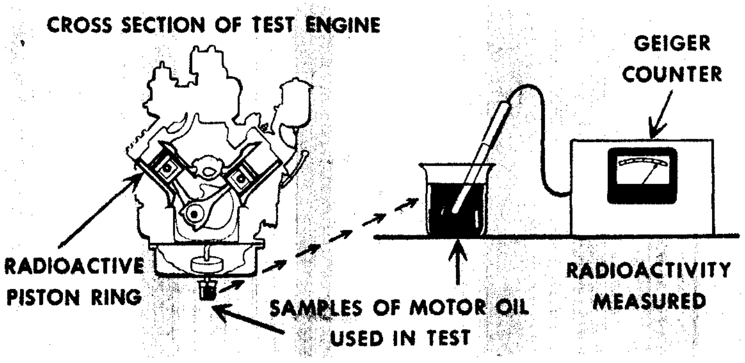
SUPERIOR TRAINING FOR ENGINEERS—In developing great aircraft Lockheed develops fine engineers. For information on Lockheed's unique on-the-job training program, write to: Engineering Dept., Lockheed Aircraft Corp., Burbank, Calif.

LOCKHEED
Aircraft Corporation
BURBANK, CALIFORNIA, AND MARIETTA, GEORGIA

Look to Lockheed for Leadership



PISTON RING MADE RADIOACTIVE in Atomic Pile at Oak Ridge, is carefully installed in test car engine by specially trained oil scientists. Radioactivity is checked with a delicate Geiger counter at all times. Car is then driven in proving ground road tests under weather conditions ranging from summer's heat to sub-zero cold. Engine wear is measured with unheard-of accuracy by this atomic test. Test results can now be obtained in only 50 miles of driving—older methods took as much as 10,000 miles.


CROSS SECTION OF TEST ENGINE
GEIGER COUNTER
RADIOACTIVE PISTON RING
SAMPLES OF MOTOR OIL USED IN TEST
RADIOACTIVITY MEASURED

HOW RADIOACTIVITY TEST WORKS: motor oil used in test run picks up microscopic metal particles worn from radioactive piston ring. Radioactivity of oil sample, measured by a Geiger counter, shows rate of engine wear. (Don't worry—the motor oil *you* buy is not radioactive.) Tests show today's motor oils can actually triple life of your car engine.

LOCAL GUARDIAN of your car engine's future is your neighborhood service station operator. Competing vigorously with rival stations for your business, he helps lengthen the life of your car by providing newest, most improved oil products, top flight service.

Atomic Tests Prove New Motor Oils Can Triple Car Engine Life

A revolutionary new testing method, using radioactive materials, proves that today's new high quality motor oils, developed since the end of World War II, can actually *triple* the life of your car engine.

These atomic tests show that today's new motor oils substantially reduce engine wear—actually make it possible for you to drive your car many more thousands of miles without costly major repairs. Atomic tests, now being conducted by many oil companies, also open the door to the future development of even finer motor oils.

Increase in motor oil quality is one direct result of the constant competition among U.S. oilmen to get to you first with new and improved products. Today's gasoline is another example—2 gallons now do the work 3 did in 1925, although today's gasoline is priced about the same—only taxes are higher.

In peace or war, you benefit from the competition among America's privately-managed oil companies with the finest petroleum products at the lowest prices in the world.

Oil Industry Information Committee
AMERICAN PETROLEUM INSTITUTE, 50 West 50th Street, New York 20, N.Y.

Can We Survive in Space?

CONTINUED FROM PAGE 35

that the crew members of a rocket ship wouldn't live to experience space, because they wouldn't even survive the tremendous stresses placed upon them during the ascent. The thrust of the operating rocket motors exerts strong forces upon the ship and its passengers. A motorist gets an inkling of one of these forces: if he steps on the accelerator, he is gently pressed against the back of the automobile seat. But this soft pressure in a car becomes a crushing force in a fast-rising rocket ship. As the space vehicle is whipped forward by the fiery jet of its escaping gases, the force increases in a slowly rising, irresistible surge. To the passenger, it will appear as though several men his own weight are standing on his chest. He will find it difficult to breathe. The fantastic acceleration will distend his features into a grotesque mask.

* * *

For short periods of time, similar stresses occur in present-day fighter aircraft when the pilot pulls out of a steep dive. For this reason, detailed studies have been made on the tolerance of humans under these conditions. In some experiments, men have been strapped into cockpitlike chairs which were then whirled around like a bucket on the end of a string. With such machines, the stresses encountered in modern aviation are being studied and measured. The results indicate that sturdy and healthy individuals will be able to withstand the rigors which the engineer deems inevitable for breaking free from the earth in a rocket ship. Probably the same medical requirements now applicable to Air Force or commercial pilots will be the yardstick used.

The stress of acceleration is not, of course, the only hazard man will encounter as he leaves the friendly atmosphere of the earth. A continuously flowing supply of breathing air is a necessity in the emptiness of space. Man can live without food or water for a considerable length of time. But without oxygen he can live only a few minutes. The crew of the space station must not be allowed to run low on oxygen at any time. Rocket ships will replenish the oxygen containers of the satellites at regular intervals.

Another problem, also tied up with the elementary fact that man cannot live without oxygen, is created by the existence of meteorites. They are the most important single danger to all space-travel projects.

Unfortunately, "empty" space beyond the atmosphere is by no means completely empty. In fact, you may call it a "no man's land" in which ultra-high-speed cosmic "bullets" fly about at random. Hundreds of millions of these "bullets" of various sizes enter the earth's atmosphere every day and often can be seen as meteors or shooting stars. When a cosmic pebble the size of a pea strikes the upper atmosphere, the air resistance heats it until it burns away. This can be seen hundreds of miles distant as a bright streak or flare. Such a meteor hurtling through space at 25 miles a second would puncture more than an inch of armor plate. Very small meteors, the size of large grains of sand, could riddle the thin walls of the space station, permitting the air to escape into space.

The reason for their penetrating powers is the extremely high speed with which these tiny objects move. At an altitude of 1,000 miles, the gravity of the earth pulls them in with a minimum speed of about six miles per second—21,600 miles per hour. Most meteors, however, would strike the earth (if they didn't almost invariably burn away first) much faster than this, even if the earth had no gravity at all. The earth moves around the sun at a rate of 18½ miles per second, or 66,600 miles per hour, while many of the meteors are moving in the opposite direction, and more rapidly. Head-on collisions between the earth and a meteorite raise the observed maximum speed, as calculated from photographs, to about 45 miles per second, or 162,000 miles per hour.

* * *

A radar warning system, unfortunately, would be useless in protecting the space station from meteors. If a meteor were large enough to be detected by the most sensitive radar, it would be large enough to destroy a complete compartment of the space station. And it probably wouldn't be seen until a split second before the collision; in that short interval, we could do nothing to prevent the collision, even if the space station were as mobile as a rocket ship.

That the chance of collision is great enough to cause alarm has been asserted repeatedly by Dr. Fred L. Whipple, of Harvard University's Department of Astronomy.

Dr. Whipple has made a careful study of that question and for the last 15 years has been photographing meteors and measuring the way in which they burn away by friction in the upper atmosphere. He has calculated that an artificial satellite or space station, such as is suggested on these pages, would be punctured by a meteorite about twice a month on the average.

This hazard is far too serious to be ignored in our engineering design. It is probable that the holes made by most meteors will be small enough so that the air would take some time to escape from a single section of the station, but these minutes of grace offer no real security. Even though bells and flashing lights might warn the occupants in time for them to put on oxygen masks before the air pressure became dangerously low, only the most steel-nerved space traveler could sleep calmly, knowing that at any moment the air might suddenly disappear from his quarters.

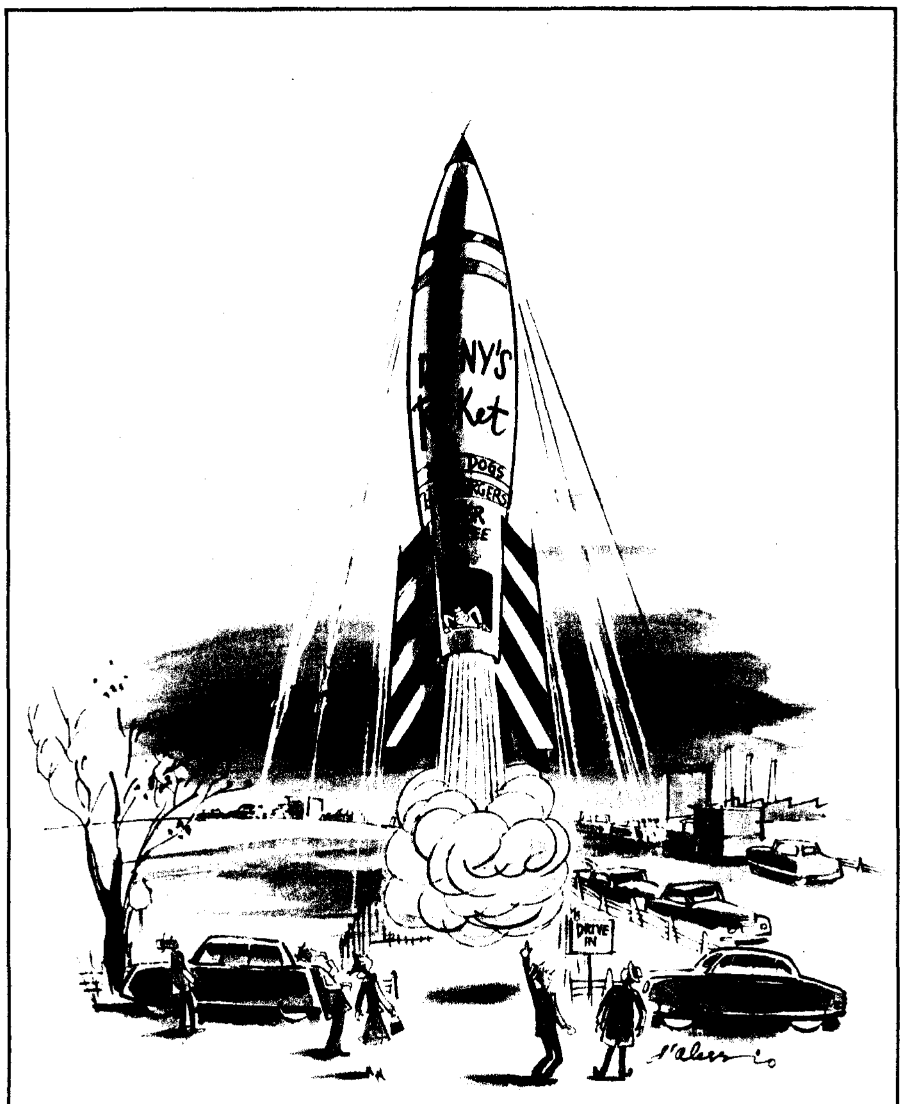
However, engineering can do something even about the meteoric menace. One device, suggested by Dr. Whipple, is called a "meteor bumper" and consists of a thin secondary wall placed an inch or so outside the main wall of the space station or rocket ship. Incoming meteors would shatter on the outer wall, leaving the inner wall intact. If properly constructed of heavy enough materials, the meteor bumper could reduce the hazard very considerably, stopping 99 out of 100 meteors.

Added protection could be gained by having automatic plugging devices, similar in principle to the Air Force's self-sealing fuel tanks, between the two walls.

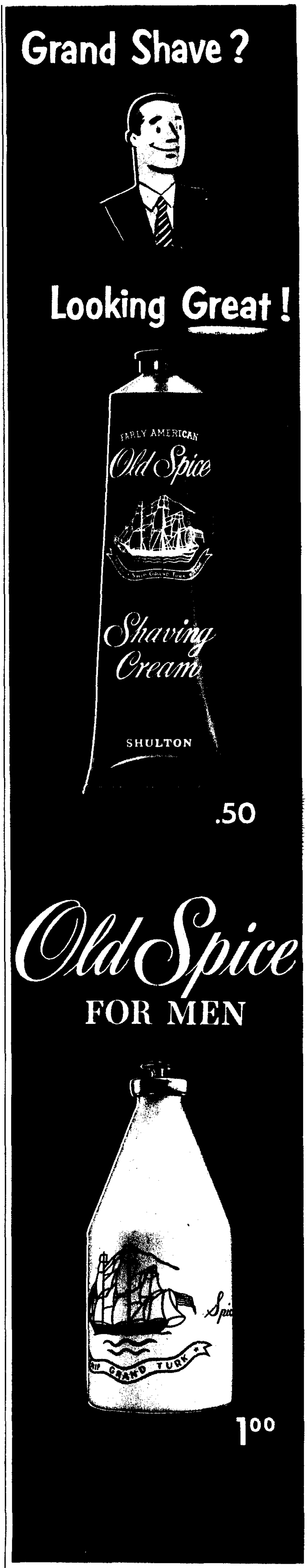
* * *

For the space station, Dr. Wernher von Braun, Technical Director of the Army Ordnance Guided Missiles Development Group at Huntsville, Alabama, suggests another method. Each compartment would have a small pressure gauge which would automatically close the doors in the section the moment the pressure dropped as a result of a meteor hit. At the same time, it would automatically start an emergency air blower which would build up the air pressure in the damaged section. Dr. von Braun believes that sufficient time might be bought in this way for the occupants to climb into their space suits. To find the small hole, he also suggests that a harmless colored gas be pumped into the section. This gas would immediately drift toward the opening, which could then be plugged.

But even with these safety measures, there remains a probability that once every few years a relatively large meteor will



COLLIER'S "Danny bought it cheap from the Army. They thought it was a dud" GREGORY D'ALESSIO

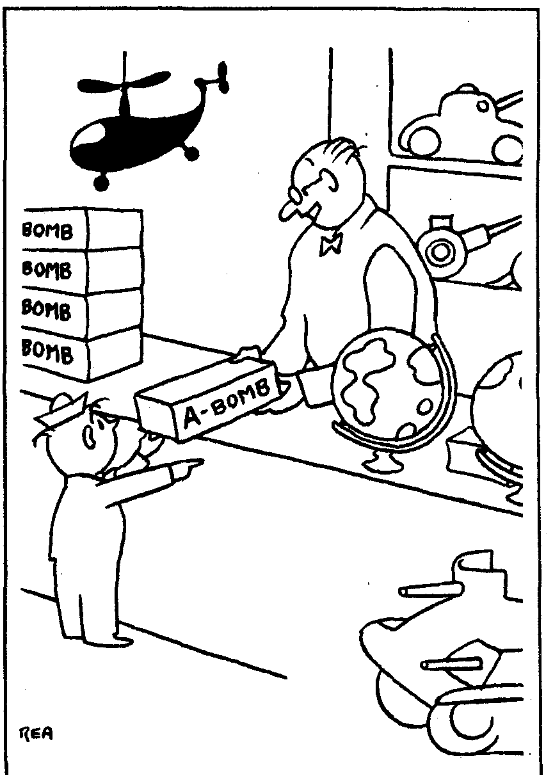


Delightful straight...
makes a delicious
tall drink
with soda and ice!
70 proof
The Velvet-Blend vodka
that makes the
dryer Martini and
the smoother Collins!
80 and 100 proof
daytime or nighttime...
DuBouche
(say doo-boo-shay)
Cordials
Many, Bla
Serve straight...
or for a delicious
Alexander Cocktail,
mix equally with
gin and sweet cream!
60 proof
Serve DuBouchett
Creme de Menthe
instead of
dessert tonight!
Add crushed ice
to DuBouchett
Creme de Menthe
for a delicious frappe!
60 proof
SAMOVAR
VODKA
DuBOUCHETT
MANY BLANC
CREME DE CACAO
GREEN
Crême de Menthe

Lend zest to *any* occasion with flavorful DuBouchett Cordials... the all-purpose cordials with the *natural* tang! Enjoy them straight at dessert time or in delightful mixed drinks any time of the day!

MANY, BLANC & CO., INC., Lawrenceburg, Ind.

Free! Recipe book featuring delicious uses of the 24 incomparable DuBouchett Cordials. Write DuBouchett Booklet, Suite 3623, 350 Fifth Avenue, New York 1, N. Y.



"Sorry, but our regulations don't permit us to sell an A-bomb kit *and* a globe to the same little boy . . ."

COLLIER'S GARDNER REA

smash through both walls of the space station. What would happen to the crew in that compartment?

The air would whistle out, and there would be a rapid drop in pressure. As a result, the crew would be "explosively decompressed." Even the lungful of air the men had inhaled with their last breath would be torn from their chests. They would have exactly 15 seconds left to restore their oxygen supply, before losing consciousness; without the oxygen they would die in a few minutes.

These prospects sound grim, but things are no different today in our modern rocket-driven airplanes. Last fall, the Navy's Douglas Skyrocket—actually a man-carrying rocket craft—rose to an altitude where the air was so thin that breathing became impossible. In this respect the pilot of the Skyrocket was actually in space. He wore a pressurized space suit even though he sat in a pressurized cockpit, for he couldn't risk one of his canopy panels being torn out. If he had lost his cabin air, he would still have had enough oxygen in his airtight suit to have escaped space death.

In the early days of space exploration, it may be found safest to wear a pressure suit even in the pressurized cabin of the rocket ship. But because of the protective devices inside the space station, pressure suits might be worn there only in times of emergency. A slow leak would not be considered serious, for the crew would have plenty of time to retreat into an adjacent compartment and seal off the damaged section until repaired.

* * *

Pressure suits for use by the crew outside the space station can be made of several layers of rubberized nylon topped by a sturdy metal helmet. The helmet's window would have to be made with a darkened piece of transparent material to ward off the sun's excessive ultraviolet rays. Of course, the crew members will carry their own oxygen, and the suits will be equipped with a small air-conditioning unit for removing the exhaled stale gases.

Humidity control will also be very important. The humidity in the suit might be compared to that endured in a three-hour stay in a telephone booth on a summer day, with a temperature of 90 degrees Fahrenheit and a relative humidity of 95 per cent.

For a brief stay in space, the removal of carbon dioxide and water vapor and the replenishing of oxygen will be sufficient. But the space station must be fully air-conditioned, because a proper atmosphere must be permanently maintained.

The skin of the space station, the paint, the cargo, the complex machinery which is in constant operation and even the bodies of the crew all give off fumes. On the ground we hardly notice the smell in a machine shop, for example, because it is dissipated by air currents. However, in the space station such vapors might in time poison the occupants, if they were allowed to accumulate. Even smoking will probably be strictly rationed, partly to save oxygen and partly to avoid overloading the capacity of the air-conditioning unit.

In venturing into space, man abandons the powerful shield or filter of the atmosphere which protects him on earth from the hazards of the little-known effects of cosmic rays. These atomic bullets—which, like the meteors, crisscross space at enormous speeds—are one of the great mysteries of the region beyond our atmosphere. Scientists know they exist and believe they may be dangerous, but little other information on them has come to light.

Cosmic rays are potentially dangerous because they are related to some of the types of rays produced in atomic explosions and in the manufacture of the A-bomb. Civil defense has made the public conscious of the term "radiation sickness." Will exposure in space cause radiation sickness?

We have no clear-cut answer to this question. Cosmic rays are so powerful that they cannot be reproduced artificially in the laboratory. But, although we do not know where they come from, we do know that they are extremely rare. We can conclude, therefore, that short trips through the thin rain of cosmic rays will almost certainly be harmless affairs. A round-the-moon trip can be made without getting radiation sickness. At this time practically no information is available as to the possible ill effects of extended cosmic-ray exposure. But if it should be found that man can absorb only so much cosmic radiation with safety, frequent rotation of the space station personnel will be the answer.

Of course, long before man ventures into space, animals will be sent up in small rocket ships for the study of radiation effects over extended periods of time. A sheep, a rooster and a duck were the first living beings to take to the air in a balloon, more than 150 years ago. And it seems that more such honors are in store for the animal kingdom. Unfortunately, however, these dumb animals will be unable to communicate their experiences. So, in the final analysis, the exploration of space must await the arrival of man.

* * *

It will be, needless to say, a strange experience. And one of its strangest aspects will be the absence of gravity (except within the space station, which will provide its own "synthetic gravity" by spinning slowly to produce centrifugal force). The result of the lack of gravitational pull will be weightlessness—and there can be no doubt that weightlessness will be the most unearthly and unforgettable experience shared by those who venture beyond the earth's atmosphere. Space and weightlessness will become synonymous, like desert and thirst, or arctic and cold.

The consequences of weightlessness are being discussed in many circles of medical science, and the opinions expressed cover a wide range of possibilities. Some believe that weightlessness will be entirely harmless; others have gone so far as to predict that man can survive only a few minutes without gravity. This latter point of view, in the opinion of top experts, is almost certainly wrong.

In the first place, blood circulation will be affected only slightly. The heart pumps the blood through the body whether it has weight or not. Secondly, eating does not require the help of gravity. We can even eat "upward," while hanging head downward from a bar. Neither will the digestion be influenced.

* * *

While the machinery of the body will go on operating in an orderly fashion even if it is weightless, man will possibly encounter trouble when he attempts to go about his daily routine. Weightless man may well find himself in this position:

Imagine a muscular weight lifter taking a good grip on what he thinks is a solid 300-pound weight, but is actually a much lighter contraption made of wood. His anticipation is utterly deceived, and the ill-adjusted strength he applies, to his great surprise, throws the fake weight violently upward.

Space-faring man will consistently experience much the same thing: he will find that his co-ordination, based on a lifelong experience with gravity, suddenly fails him in this new environment. A simple movement on earth, such as rising from his chair, will, in space, jerk him across the cabin toward the opposite wall. The co-ordination of the body, which is so automatic here on earth that we take it for granted, will have to be acquired all over again.

Since the customary effects of gravity are absent, there is no "up" or "down"—a factor certain to prove confusing. Normally, we rely to a great extent on gravity for orientation. But in a rocket ship, all orientation will depend on the eyes. It probably can be acquired, but until it has been learned, there exists the possibility of "space sickness," which will reduce efficiency even if it does not completely incapacitate the crew.

Not only the men will float around aimlessly in the weightlessness of a coasting rocket ship—objects will do the same, and this will cause trouble if careful thought is not given to the design beforehand.

In space, we must use other forces to substitute for gravity. Every metal object must be made of steel, or at least have a steel strip inlaid somewhere on it. Such tools can be kept in place with magnets, along the lines of the magnetic knife board in use in many of today's kitchens. Where magnetism cannot do the job, as with papers, friction will have to substitute for gravity—the clip-board is an everyday example of such a device.

As for eating utensils, the function of the knife and fork will remain the same. The knife still cuts and the fork utilizes friction to hold food after it has been speared. The spoon, however, is useless aboard a rocket ship (and so is the fork when used like a spoon), so the well-planned table in space will include some offspring of the sugar tongs, something which will hold food by friction.

Liquids will be especially annoying; any liquid from milk to Burgundy is likely to imitate what any bottled heavy sauce does on the ground. If you tilt a bottle in space nothing will come out, for, since the liquid does not weigh anything, there is no reason for it to pour. But when you shake the bottle, all the contents will come out in one splash. The solution to that particular problem is a very old invention: the drinking straw, which does not rely on gravity but on air pressure. Another method: plastic bottles, which, when squeezed, eject liquid.

Cooking aboard the space station will not be too difficult, because the satellite enjoys synthetic gravity. However, in rocket ships it will be quite different from the same process on the ground. Open pots or pans are useless, for boiling water will simply erupt from an open pot because of the steam bubbles which form at the bottom. Likewise, the first explosive sizzle of a steak's fat will send the meat floating across the cabin. Only closed cooking pots can be used and the ideal broiler is the so-called electronic range which cooks by short wave. (Naturally, if the crew members of the rocket ship are wearing pressure suits, they will have to open the visors of their helmets to eat.)

In long rocket-ship trips from the space station to other planets, seasoned space travelers may enjoy sleeping literally on an air cushion, just floating in air, possibly with a string tied to their wrists or ankles so that the reaction of their breathing will not "float" them away.

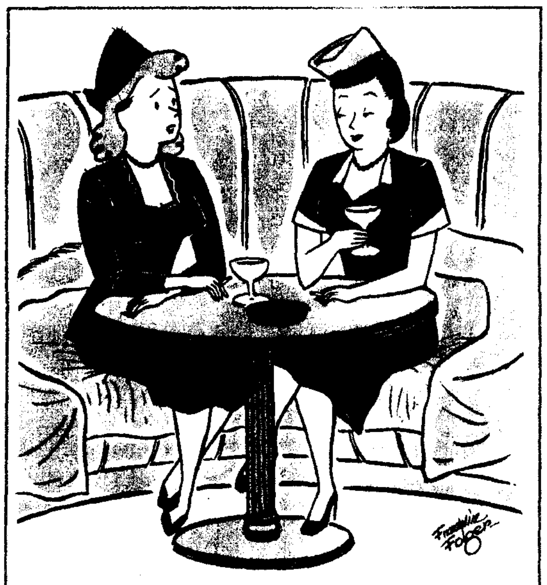
* * *

So far, we don't know whether the familiar pressure of a bed against the body is necessary for falling asleep. If it is, it can be "faked" during the weightless state by having a set of rubber straps force the body against a board or other flat surface. Beginners, however, will have to sleep in special bunks. These will look like six-foot lengths of pipe, upholstered inside and equipped with wire mesh covers at both ends. These wire mesh covers—the "wire" would probably be nylon string and the mesh widely spaced—would keep the sleeper inside his "bed." Without them, he might push himself out of it by unconscious movements or even be sucked over to the outlet end of the air-conditioning system.

For most of us, weightlessness will hardly be an agreeable and welcome feeling, and learning to live with it may prove a painful lesson. However, man has an astonishing ability to adjust himself to extreme conditions. A few individuals may even get to enjoy weightlessness, after a fashion. The crew members will probably be able to master its intricacies and go about their daily chores with ease.

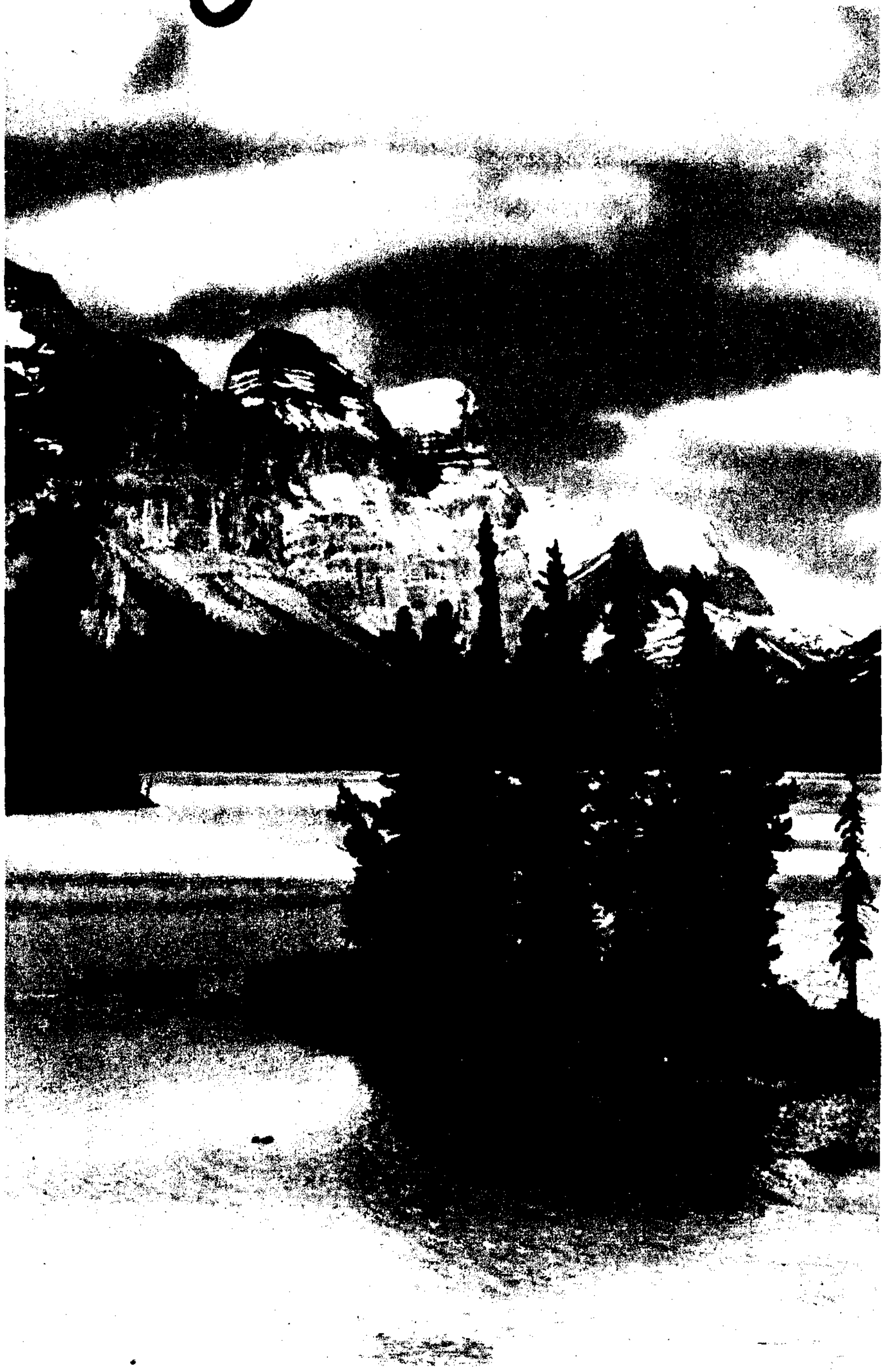
We can be reasonably certain that man will be able to survive in space because we have sufficient knowledge of what will happen to the rocket ship or space station and to man himself. We can plan intelligently for his survival. Unlike the earth's early explorers, the pioneers of space know pretty well what they are headed for, and they know that they will be equipped adequately.

The conquest of space hinges on man's survival in space. And the crews of rocket ships and space stations, while they can never be completely protected against hazards such as meteors, will probably be safer than pedestrians crossing a busy street at a rush hour. THE END



"It must be wonderful going with a man who can write books. I always get the kind that can tear them in half"

COLLIER'S FRANKLIN FOLGER



THIS YEAR—COME TO JASPER SHOWPLACE OF THE CANADIAN ROCKIES

ONE OF CANADA'S 10 TOP MAPLE LEAF VACATIONS

You'll agree with world travellers that nowhere else does Nature set such a breathtaking background for a full vacation . . . golfing, riding, fishing, motoring. You'll enjoy the social charm, luxury and informality of Jasper Park Lodge . . . the convenience and comfort of travelling by the Scenic Route across Canada. Ask your nearest Canadian National Office* about this or the other Top Vacations listed.
"We'll tell you where and take you there".

CANADIAN NATIONAL RAILWAYS

SERVING ALL 10 PROVINCES OF CANADA

Choose from this rich variety. Here are Canada's 10 Top Maple Leaf Vacations

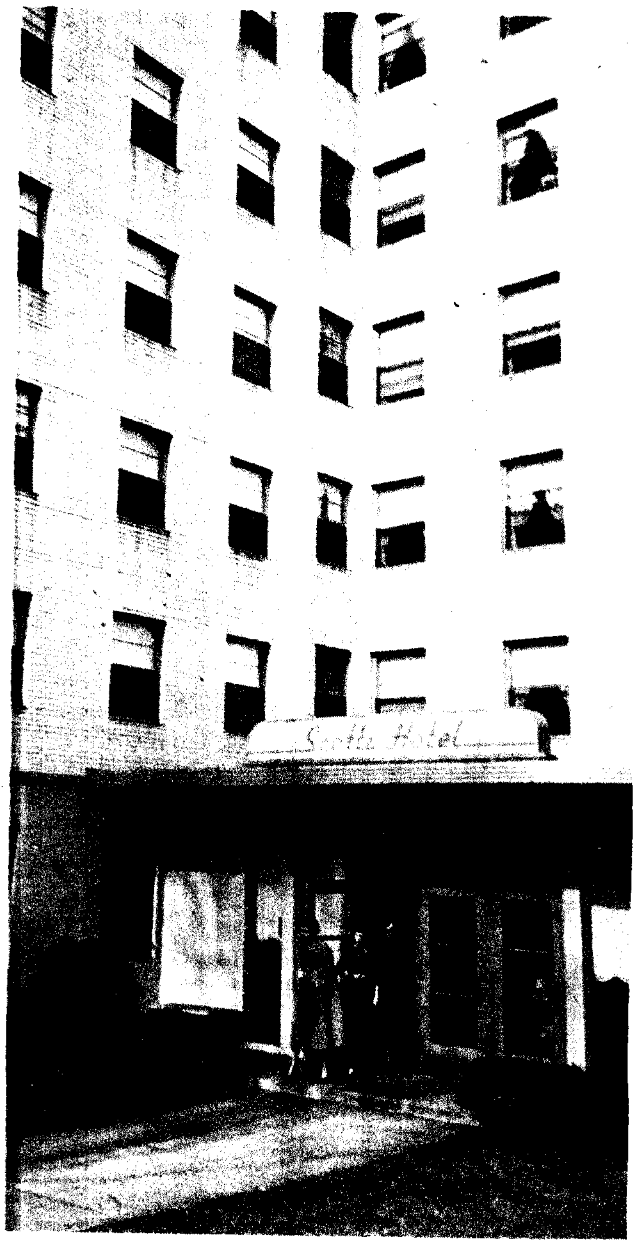
1. Across Canada—the Scenic Route to California or the Pacific Northwest, to New York or anywhere East.
2. Alaska Cruise — ten days, 2,000 miles of sheltered coastal sailing.
3. British Columbia —Vancouver, Victoria, Prince Rupert. A magnificent marine and mountain playground.
4. Eastern Cities and Laurentians—history-book places, mountain lakes, brilliant autumn colours.
5. Hudson Bay — "Down North" to romantic frontiers, via Winnipeg.
6. Jasper in the Canadian Rockies — play, relax in mountain grandeur.
7. Minaki (Lake of the Woods) — swimming, motor-boating, golf in a northwoods setting. Wonderful fishing!
8. Ontario Highlands—land of lakes and streams; fishing; camping. Fine hotels, resorts.
9. Provinces by the Sea—beaches, bays, fishing ports, historic old cities.
10. Romantic French Canada (Gaspé and the Saguenay)—like taking a trip abroad.

*Canadian National Railways offices in Boston, Buffalo, Chicago, Cincinnati, Detroit, Flint, Mich., Kansas City, Los Angeles, Milwaukee, Minneapolis, New York, Philadelphia, Pittsburgh, Portland, Me., San Francisco, Seattle, St. Louis, Washington, D.C. In Canada, 360 McGill Street, Montreal, Que.

In homelike atmosphere, Marie Barfield answers telephone in her room at Scotts' Hotel, while visitor R. Frances Taylor relaxes

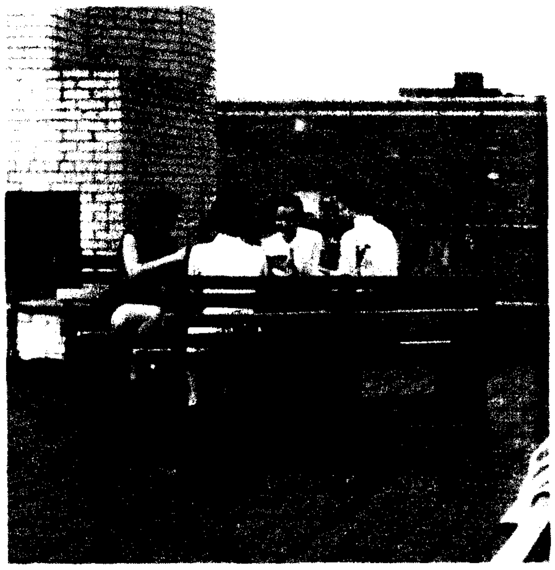
Great attractions at Scotts' are hair driers and laundry facilities on each floor. Here Air Force workers Edna Vernlund (left) and Jane Nass prepare for big Saturday-night dates

Neat and cheerful, six-story hotel for women has pleasant lawns on Washington's O Street



Nightly bridge game [illegible] has been in progress several years [illegible] foursome

For convenience of residents Scotts' has an inexpensive coffee shop on the ground floor



For relaxation girls go up to "lounge roof." They may invite dates up on special evenings

Engaged, Olive Grainger and Richard Brown make use of one of hotel's six beau parlors

Collier's COLOR CAMERA

FOR WOMEN ONLY

As EVERY unmarried woman knows, working and living away from home may be glamorous, romantic and exciting, but it can also be dismal as Saturday night with the measles. The big problem—no matter what the job or the city—is finding a comfortable, pleasant place to live. In every one of the nation's big cities, there are hundreds of thousands of working girls who have no real homes. But Washington, D.C., has the greatest proportion of them. In that overcrowded center of government, a room with an adjoining window is worth a queen's ransom. D.C. career girls float from rooming house to rooming house trying to find a home with a heart. Nearly all of them would consider trading their best beaux and a raise in civil service rating for a room in Scotts' Hotel for Women.

Scotts', a simple, six-story, white-brick building, not far from famous old DuPont Circle, is the answer to a white-collar maiden's prayer. It has, because owners Ralph and Harry P. Scott planned it that way, everything a girl could ask for—except unlimited capacity. Accommodating only 250 girls at about $60 a month, Scotts' rooms are all singles. There's no doubling up.

More like a club than a hotel, it is loaded with such comfort-making extras as hair driers on each floor; an inexpensive coffee-and-sandwich counter; cardrooms; free wedding facilities; a community ice-cube chest; laundry rooms; and a "lounging roof" with a fireplace for barbecue parties, smooth red-brick floors for moonlight dancing and two sun decks. Only 10 of the hotel's rooms have private baths, but they all have private telephones: for when the Scotts were building the place in 1941, Ralph polled prospective roomers and found that for single girls the uninterrupted phone call is more vital to the full life than the uninterrupted bath.

The most popular part of Scotts' Hotel, though, is the row of "beau parlors" on the street floor. Flossy extensions of the old front parlor of standard rooming houses, the six cozy, monk's-cloth-curtained, six-by-eight-foot alcoves are perfect for têtes-à-têtes and hand holding. To make the point, sentimental fifty-five-year-old Ralph Scott had inscribed over each of the little sitting rooms the names of famous lovers. Scotties—as the girls call themselves—can hold hands with guys named Joe and think of themselves as Romeo and Juliet, Elsa and Lohengrin, Antony and Cleopatra. Few girls have that kind of convenience at home.

To rent one of the few vacancies that arise from time to time at Scotts', a girl must meet rigid standards. The management keeps the requirements secret, but they approximate, in the words of one lucky girl, a cross between a review by the admissions committee of a swank girls' school and an audit of earning stability by a finance company. Scotts' insists that it adds to the homey atmosphere to have intellectually congenial neighbors without money worries.

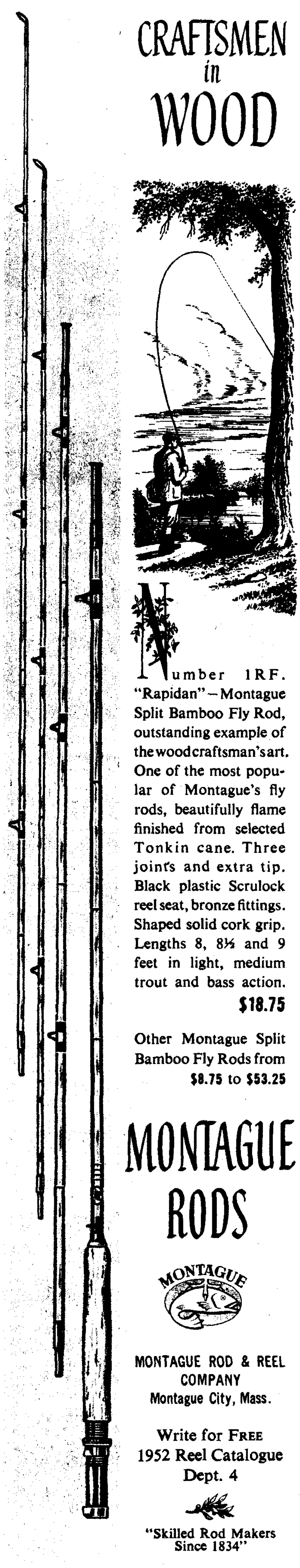
The Scotts should know. As owners of 50-odd rooming houses on $3,000,000 worth of property in the immediate vicinity of the hotel, they are undisputed Champions of Washington Rooming House Landlords. No men to confine themselves to the simple distribution of linen, soap and room keys, Harry and Ralph Scott built up their real-estate holdings between the two World Wars by attracting loyal roomers with picnics, formal dances, song fests, athletic tournaments, riding clubs, bicycle trips, pie-eating contests, lectures by Washington bigwigs, style shows, drama groups and all-expense cruises to Bermuda for holders of lucky meal-ticket numbers. Ralph, who has several college degrees, including a Doctorate of Jurisprudence, and was once assistant dean of Southeastern University's Law School in the capital, ran classes in languages, government, hygiene, dancing, art and, of course, marriage and the family.

In 1941, when Washington began to split its seams with the influx of thousands working in the war effort, the Scotts borrowed half a million dollars from the RFC. A year later, they were welcoming D.C. career girls to the new Scotts' Hotel for women. Some 24 hours after it opened, it was booked solid. It is still about as difficult for a girl to get into as it would be for her to land a movie contract. And the 250 ladies who are presently enjoying the privilege don't intend to move.

Says one insider: "It's just like home. I'm not leaving till a certain young man asks the Scotts to order our wedding dinner." Then she looks around at her pleasant, sunny room, and listens to the chatter down the corridor. "But," she adds, "I'll sure miss that hair drier."

RALPH GINZBURG

PHOTOGRAPHS FOR COLLIER'S BY MARVIN KONER



CRAFTSMEN in WOOD

Number 1RF. "Rapidan"—Montague Split Bamboo Fly Rod, outstanding example of the wood craftsman's art. One of the most popular of Montague's fly rods, beautifully flame finished from selected Tonkin cane. Three joints and extra tip. Black plastic Scrulock reel seat, bronze fittings. Shaped solid cork grip. Lengths 8, 8½ and 9 feet in light, medium trout and bass action. $18.75

Other Montague Split Bamboo Fly Rods from $8.75 to $53.25

MONTAGUE RODS

MONTAGUE

MONTAGUE ROD & REEL COMPANY
Montague City, Mass.

Write for FREE 1952 Reel Catalogue Dept. 4

"Skilled Rod Makers Since 1834"

Who Owns the Universe?

CONTINUED FROM PAGE 36

is probably most significant about this papal bull (and others like it) was that it introduced the notion of law to the problem of new territories. It was based on the assumption that sovereignty was not just a matter of naked power or, as it has been called, of the "divine right of grab"; at least there had to be a legal basis.

However, the papal bull did not settle the actual problem. England for one, as a Protestant country, did not accept it; moreover, English freebooters like Sir Francis Drake and Sir John Hawkins soon made a mockery of Spanish claims to dominion over the seas. With the victory over the Armada, all claims to exclusive ownership of the high seas by Spain were effectively ended. The significant result was the development of the principle of freedom of the seas, a fundamental feature of international law, and one which has contributed greatly to the peace and economic development of the world.

In regard to the land, as in the case of the sea, the decree of the Pope was not a final settlement, but only the beginning of the development of rules of law. Both Spain and Portugal were soon obliged to justify their claims by legal principles. It was then that new rules emerged which were to decide what countries were to govern the new territories.

What were these rules? Perhaps the most important was that the mere discovery of new territory was not considered sufficient to confer sovereignty. Even extended exploration was not enough; nor did the giving of names to portions of the lands or waterways make any difference. It was, however, agreed that if a country effectively occupied new territory, through settlement it acquired sovereignty. Thus Columbus felt obliged to leave some of his crew on the island of Hispaniola (Haiti) to justify legally the Spanish claims.

* * *

But it is important to note that settlement was not always essential. In many cases, claims rested merely on certain symbolic acts of possession. The French and Portuguese would erect crosses or monuments bearing the royal arms. The Spanish and English used more elaborate ceremonials, usually a whole ritual, to denote the formal taking of possession. For example, the English sometimes used a "turf and twig" ceremony, taking from the land a clod of earth and a twig as tokens of acquiring ownership. The Russians also employed symbolic acts, such as burying copper plates bearing their coat of arms in the Aleutian Islands and the Alaskan coast. These various rituals were generally considered effective, though it is by no means certain that they would be accepted today.

In recent years there has been further development. The emphasis has shifted from the taking of physical possession and settlement to displaying the authority of government in a practical way. The whole problem is presented sharply today in connection with claims to the antarctic region. This great area has been claimed by a number of nations on the basis of exploration and display of governmental authority. But so far none of these claims has been accepted and the controversy remains unresolved.

The dispute over the antarctic shows how the principles of law developed in the period of the discovery and exploration of America have their effects today. Moreover, the controversy foreshadows the conflict that may arise when the first rocket ships reach the moon and other celestial bodies.

Governments will, of course, tend to think and act in terms of their own particular interest; they will normally use past practice to further their special claims. If this pattern is followed, we may expect to see that the first landings on the moon will involve all sorts of acts intended to support claims of sovereignty. Obviously, the flag will be planted and, very likely, names will be given to places on the moon (though astronomers have already named the larger lunar features). We might then be reading of lunar "Washingtons" and "New Yorks," perhaps of King George mountains and Stalin craters.

In place of the old ceremonials with crosses and coats of arms, scientific instruments might be left behind, and these might be regarded as having symbolic as well as practical value. Finally, there might be attempts by governments to exercise control, perhaps even to issue licenses, and to claim the right to exclude those who are not licensed. All of this would be the old story of territorial rivalry—but this time extended into the heavens themselves.

We may well ask whether this is the only way governments can deal with the problem. Would it not be possible to by-pass the whole problem of national sovereignty in outer space?

The answer to this might be found in the analogy with the system governing the high seas. We have already seen that at one time governments maintained that the open seas as well as the land belonged to them. These were not just theoretical claims; they were enforced by men-of-war. Passage was often prohibited and tolls were levied. It was not until the time of Queen Elizabeth I that this system was challenged.

When the Spanish ambassador lodged a protest against Francis Drake's voyage to the Pacific in 1577, Elizabeth rejected the protest, declaring that the sea, like the air, was common to all mankind and that no nation could have title to it. The Dutch (like the English, a rising maritime and commercial power) also flouted Spanish and Portuguese claims. Their jurists, including Grotius, the father of international law, argued that the sea was common property and that all peoples were to use it. Gradually this idea prevailed.

Why not extend the same principle, now applicable to the open seas, to outer space and the celestial bodies? These areas would then be considered as belonging to all mankind, and no nation would have the right to acquire any part of them, any more than a nation now has the right to acquire parts of the open sea. The whole idea of national sovereignty outside of the earth would thus be eliminated.

But it might be asked whether this would not result in a state of anarchy, with no rules or restraints whatsoever. The simple answer to this might again be drawn from the analogy with the high seas. Obviously, the open sea is not in a condition of lawlessness; it is, in fact, subject to law, although not to the authority of any single nation.

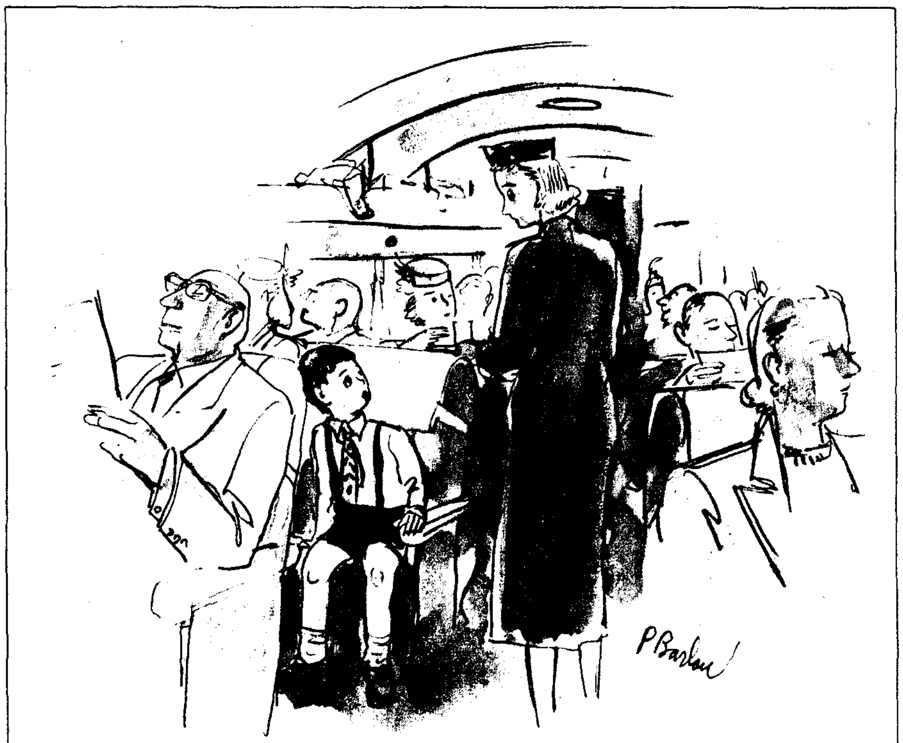
Similarly, laws would have to be developed to apply to outer space. Certainly a principal object of such laws would be to encourage scientific research and investigation. Thus, there would be the idea of free and equal use rather than exclusive use. Space travel, like navigation on the seas, would be permitted to everyone, no matter what country he came from or under what flag he traveled. In general, interference with such travel would be prohibited and governments would not have the right to appropriate portions of space.

* * *

There might have to be exceptions to the general principle that outer space is completely free and cannot be appropriated. Perhaps governments might be given the right to own and maintain scientific installations, just as today countries are permitted to have lightships and weather stations permanently installed on the open seas. Suppose also that valuable mineral deposits are found on the moon or a planet—would there not have to be a rule permitting countries to exploit these resources when they have discovered and developed them? True, this would be a departure from the idea of free and equal use, but on the other hand it would be quixotic to declare that valuable minerals found and developed by one country should be available to anyone and everyone.

A more immediate problem is presented by the rocket ship itself. When we consider the possible uses of such ships, all sorts of questions arise. Will they be permitted to move about, free from the authority of any particular country and free of any other restraints? One might, for instance, envisage a space station high above the earth equipped to send radio or television signals to the earth. Would that satellite, therefore, be free of all the regulations, both international and national, which safeguard the public interest in this field? And if control is to be exercised, how should it be made compatible with the principle of freedom of outer space which we have urged?

The best way to meet this problem, it



COLLIER'S "We in Outer Space yet?" PERRY BARLOW

CAR OWNERS! SAVE 1 GALLON OF GAS IN EVERY 10

Friction-Proof with Wynn's When You Change Motor Oil for Spring

SAVE A DIME every time you use a dollar's worth of gas! Add Wynn's Friction Proofing Oil to your motor oil every 1000 miles. Wynn's secret compounds surface engine parts with a super-smooth "plating" that practically eliminates the rubbing, scraping friction drag that wastes up to half your car's power. As a result, you get more pep, more power on less gas. Wynn's also cuts down carbon and sludge, frees sticky valves, reduces wear. Try it!

WYNN'S
FRICTION PROOFING
OIL

95¢ pint
slightly higher in Canada

AT SERVICE STATIONS, GARAGES, NEW CAR DEALERS

WYNN OIL COMPANY • AZUSA, CALIFORNIA

seems to me, is to begin with the idea that each space craft must bear the flag of a particular country; that is, it must have a nationality (perhaps, as an exception, there might be some space craft which could belong to an international organization). If a ship tried to evade this rule, it would be in the same position as a pirate of old and it would be subject to seizure by any government able to lay hands on it.

By requiring that each space craft have a nationality and a flag, it becomes possible to supervise them and control them. They then become subject to the discipline and the laws of the flag-state. If they failed to comply with those rules, they would become subject to penalties. At the same time, the government whose flag they fly would have to guarantee the proper use of the craft. The flag would also protect them against any abuses from other governments.

Since the craft would be mainly subject to national rules, it would be desirable that these have common features. By way of illustration, there would have to be agreement regarding signals for radio communications and similar matters. For the most part, however, the regulation would be left to the government whose flag the craft bears. That government would, in the first place, decide whether the craft was entitled to bear its flag. It would also determine the authority which the captain would exercise; it would provide for the safety of the personnel aboard and it would define and punish criminal acts. To a large extent these rules would be similar to those applicable on the high seas and many questions could be decided simply by referring to the law governing vessels at sea.

Let us return to the example of the space station engaged in broadcasting radio or television programs. In the first instance, the regulation of that station would be carried out by the country to which it belongs. Thus, an American television station operating in outer space presumably would be subject to the authority of the Federal Communications Commission. Perhaps new regulations would have to be devised to meet engineering problems which might arise; but, in any case, it would be clear that a station would not be free to evade control by its own government.

* * *

A much more difficult problem would be presented by a rocket ship or space station devoted to military purposes. In this case, the analogy with the high seas may be questionable. The high seas, as we well know, may become a theater of war and, generally speaking, there is no prohibition against belligerent vessels utilizing the open seas for warfare. However, when one conceives of a rocket ship or space station operating far above the earth with bombs of mass destruction, there can be little doubt that the potential danger to mankind would far exceed that which could be caused by a ship of war on the high seas.

This factor may lead to a demand that the use of outer space for military purposes be outlawed. But whether space craft as implements of warfare should be considered separate from other questions of security and disarmament might well be a controversial question in this period of international tension.

Although we have been talking about outer space, we have said nothing about where outer space begins; or to put it in another way, how far up does the territory of a country extend?

Now, this is not a brand-new question. In ancient Roman law, the landowner was considered to own the space above the land upward "to the heavens." But the idea of a private landowner owning all the space above his land has long been abandoned. Today, a man no more owns the air above his land than a man with a house on the seashore owns all the sea in front of his house. However, in contrast, it is well established that a nation does own the space above its territory. This principle obviously has considerable importance in regard to aviation. Thus, when governments entered into treaties relating to aviation they declared that "every power has complete and exclusive sovereignty over the airspace above its territory." This is accepted in international law.

Now, what does the term "airspace" mean in this sense? Does the term "air" extend only to the upper atmospheric regions? Should it be defined in terms of the composition of the gases or their density? So far there has been no authoritative answer to this question. The reasonable answer, it would seem, is to consider that the term is used in aviation treaties and therefore it is presumably intended to refer to the part of the atmosphere which contains enough air to allow aircraft (including balloons) to fly. Up to now balloons have gone as high as 21 miles, but it is estimated that air sufficient for flight extends about 60 miles above the earth. Beyond that there is no airspace so far as aircraft are concerned.

Whatever may be the precise boundary of the airspace, it is clear that when we go beyond it we are legally in a no man's world. The whole idea of national territory above the "airspace" would be based on a theoretical and fanciful notion, without any practical application.

* * *

It has been proposed that the upper territory be limited in terms of a country's power to exercise effective control. Presumably, this means that if a state can "control" (*i.e.*, stop) the flight of another nation's rocket at a certain distance, then territorial sovereignty should be limited to that distance. This position has been put forward by a distinguished authority, Mr. John C. Cooper, the director of the Institute of International Air Law. He has proposed "that at any particular time, the territory of each state extends upward into space as far as the then scientific progress of any state in the international community permits such state to control space above it."

It is interesting to note the resemblance between this approach and the old three-mile rule which has fixed the area of a country out into the ocean. This three-mile rule was also based on the idea of effective control—in particular, on the range of shore artillery batteries. At the end of the eighteenth century, these batteries had a range of about three miles, and therefore it was considered that that portion of the sea was within the control of the state.

Although the principle of effective control has been important in international law, one wonders whether it should be applied to this new problem of space travel. It would seem to mean that whenever a country could prevent or interfere with the movement of a rocket ship or space station it would have the legal right to do so. Would this not, in effect, simply be a rule that "might makes right"? And would it not place rocket ships and space stations at the mercy of those national states which would be able to interfere with their free passage?

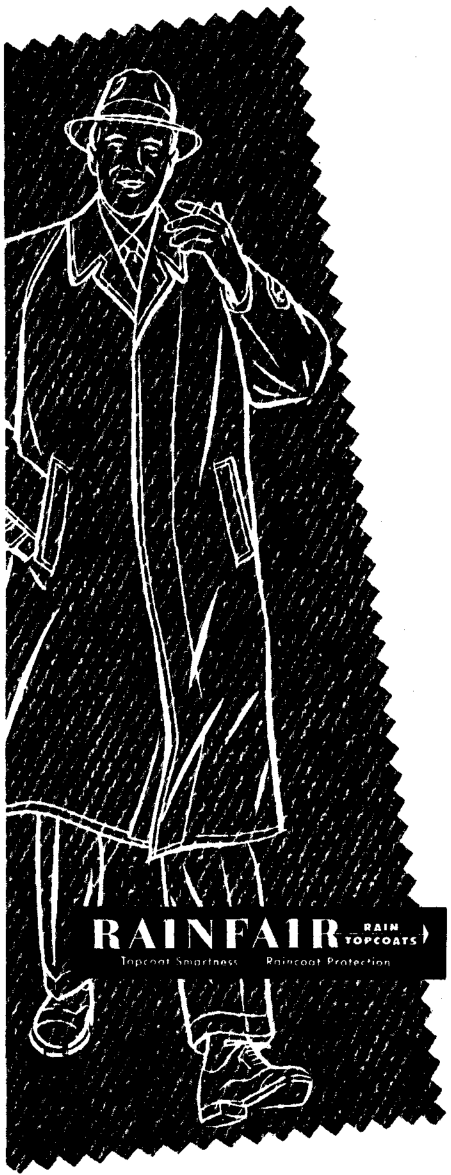
There certainly does not appear to be any compelling reason in law or principle to carry national sovereignty this far. Indeed, any attempt to extend national territory higher than the airspace is bound to involve difficulties. Why not, then, fix the limit at the upper boundary of the airspace and no higher?

Beyond the airspace, as already noted, we would apply a system similar to that followed on the high seas; outer space and the celestial bodies would be the common property of all mankind, and no nation would be permitted to exercise domination over any part of it. A legal order would be developed on the principle of free and equal use, with the object of furthering scientific research and investigation. It seems to me that a development of this kind would dramatically emphasize the common heritage of humanity and that it might serve, perhaps significantly, to strengthen the sense of international community which is so vital to the development of a peaceful and secure world order.

THE END

Gabardine by RAINFAIR→

The coat you'll wear Rain or Fair!



Sensible buy for Spring—the worsted-like Cavalier!

This Rain Topcoat sensation is luxury tailored, with the look and drape of fine worsted. It's dependably shower-proofed, too! Yet it's yours in blue, taupe or tan, for only $17.95. Same full-bodied gabardine* available in the military-style *Major*, in three colors including Air Force Blue, $22.50. Write us for free style booklet and name of your nearest Rainfair dealer.

*rayon and acetate

●

Best buy in raincoats! **The Nylonair is 100% waterproofed nylon, has a silky lustre, can't crack, harden or peel. Packs in a pocket-size pouch. Unconditionally guaranteed, $14.95.**

RAINFAIR, INC. • RACINE 4, WISCONSIN
Makers of SMARTAIR Leisure Wear

Crossing the Last Frontier

CONTINUED FROM PAGE 29

there is no resistance which would slow the "wheel" down, the rocket motor does not have to function continuously. It will operate only long enough to give the desired rotation. Then it is shut off.

Now, how fast would we like our station to spin? That depends on how much "synthetic gravity" we want. If our 250-foot ring performed one full revolution every 12.3 seconds, we would get a synthetic gravity equal to that which we normally experience on the ground. This is known as "one gravity" or, abbreviated, "1 g." For a number of reasons, it may be advantageous not to produce one full "g." Consequently, the ring can spin more slowly; for example, it might make one full revolution every 22 seconds, which would result in a "synthetic gravity" of about one third of normal surface gravity.

The centrifugal force created by the slow spin of the space station forces everything out from the hub. No matter where the crew members sit, stand or walk inside, their heads will always point toward the hub. In other words, the inside wall of the "wheel's" outer rim serves as the floor.

* * *

How about the temperature within the space station? Maybe you, too, have heard the old fairy tale that outer space is extremely cold—absolute zero. It's cold, all right, but not that cold—and not in the satellite. The ironical fact is that the engineering problem in this respect will be to keep the space station comfortably cool, rather than to heat it up. In outer space, the temperature of any structure depends entirely on its absorption and dissipation of the sun's rays. The space station happens to be in the unfortunate position of receiving not only direct heat from the sun but also reflected heat from the earth.

If we paint the space station white, it will then absorb a minimum of solar heat. Being surrounded by a perfect vacuum, it will be, except for its shape, a sort of thermos bottle, which keeps hot what is hot, and cold what is cold.

In addition, we can scatter over the surface of the space station a number of black patches which, in turn, can be covered by shutters closely resembling white Venetian blinds. When these blinds are open on the sunny side, the black patches will absorb more heat and warm up the station. When the blinds are open on the shaded side, the black patches will radiate more heat into space, thereby cooling the station. Operate all these blinds with little electric motors, hook them to a thermostat, and tie the whole system in with the station's air-conditioning plant—and there's your temperature control system.

Inflating the space station with air will, as we have indicated, provide a breathable atmosphere for a limited time only. The crew will consume oxygen at a rate of approximately three pounds per man per day. At intervals, therefore, this life-giving oxygen will have to be replenished by supply ships from earth. At the same time, carbon dioxide and toxic or odorous products must be constantly removed from the air-circulation system. The air must also be dehumidified, inasmuch as through breathing and perspiration each crew member will lose more than three pounds of water per day to the air system (just as men do on earth).

This water can be collected in a dehumidifier, from which it can economically be salvaged, purified and reused.

Both the air-conditioning and water-recovery units need power. So do the radar systems, radio transmitters, astronomical equipment, electronic cookers and other machinery. As a source for this power we have the sun. On the earth, solar power is reliable in only a few places where clouds rarely obscure the sky, but in space there are no clouds, and the sun is the simplest answer to the station's power needs.

Our power plant will consist of a condensing mirror and a boiler. The condensing mirror will be a highly polished sheet metal trough running around the "wheel." The position of the space station can be arranged so that the side to which the mirror is attached will always point toward the sun. The mirror then focuses the sun's rays on a steel pipe which runs the length of the mirrored trough. Liquid mercury is fed under pressure into one end of this pipe and hot mercury vapor is taken out at the other end. This vapor drives a turbogenerator which produces about 500 kilowatts of electricity.

Of course, the mercury vapor has to be used over and over again, so after it has done its work in the turbine it is returned to the "boiler" pipe in the mirror. Before this can be done, the vapor has to be condensed back into liquid mercury by cooling. This is achieved by passing the vapor through pipes located behind the mirror in the shade. These pipes dissipate the heat of the vapor into space.

Thus we have within the space station a complete, synthetic environment capable of sustaining man in space. Of course, man will face hazards—some of them, like cosmic radiation and possible collision with meteorites, potentially severe. These problems are being studied, however, and they are considered far from insurmountable.

Our "wheel" will not be alone in the two-hour orbit. There will nearly always be one or two rocket ships unloading supplies. They will be parked some distance away, to avoid the possibility of damaging the space station by collision or by the blast from the vehicle's rocket motors. To ferry men and materials from rocket ship to space station, small rocket-powered metal craft of limited range, shaped very much like overgrown watermelons, will be used. These "space taxis" will be pressurized and, after boarding them, passengers can remove their space suits.

On approaching the space station, the tiny shuttle-craft will drive directly into an air lock at the top or bottom of the stationary hub. The space taxi will be built to fit exactly into the air lock, sealing the opening like a plug. The occupants can then enter the space station proper without having been exposed to the airlessness of space at any time since leaving the air lock of the rocket ship.

* * *

There will also be a space observatory, a small structure some distance away from the main satellite, housing telescopic cameras for taking long-exposure photographs. (The space station itself will carry extremely powerful cameras, but its spin, though slow, will permit only short exposures.) The space observatory will not be manned, for if it were, the movements of an operator would disturb the alignment. Floating outside the structure in space suits, technicians will load a camera with special plates or film, and then withdraw. The camera will be aimed and the shutter snapped by remote radio control from the space station.

Most of the pictures taken of the earth, however, will be by the space station's cameras. The observatory will be used mainly to record the outer reaches of the universe, from the neighboring planets to the distant galaxies of stars. This mapping of the heavens will produce results which no observatory on earth could possibly duplicate. And, while the scientists are probing the secrets of the universe with their cameras, they will also be planning another trip through space—this time to examine the moon.

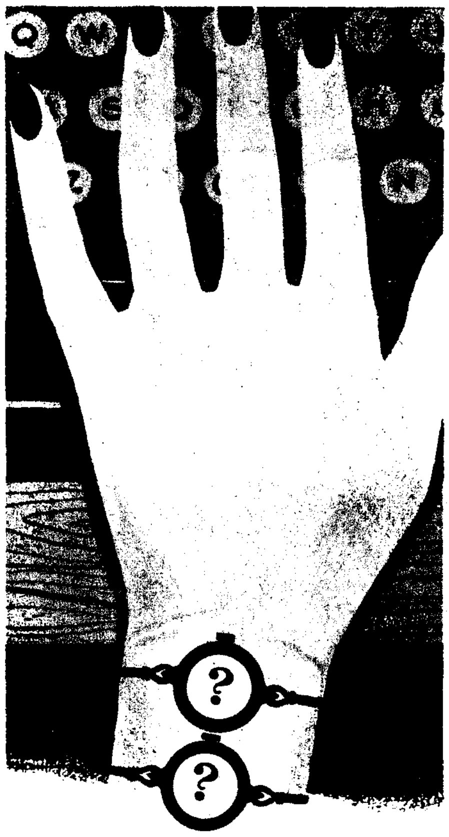
Suppose we take the power plant out of our rocket ship's last stage and attach it to a lightweight skeleton frame of aluminum girders. Then we suspend some large collapsible fuel containers in this structure and fill them with propellants. Finally, we connect some plumbing and wiring and top the whole structure with a cabin for the crew, completely equipped with air and water regeneration systems, and navigation and guidance equipment.

The result will be an oddly shaped ve-

"Herb beat up a guy to defend my honor, then I had to beat up Herb to defend it myself"

COLLIER'S

KATE OSANN



Which watch will keep its accuracy?

Ask Your Jeweler—He'll Say "...the one with INCABLOC!"

Your jeweler will tell you the INCABLOC shock-absorber protects the heart of your watch against the countless shocks it receives daily . . . keeping it running without interruption, protecting its accuracy.

For years of added service and fewer repair bills, ask for INCABLOC protection in the next watch you buy. *It costs no more!* INCABLOC is in use in more than 50 million watches.

Jewelers Agree that the INCABLOC shock-absorber makes every watch a better watch!

The Universal Escapement Ltd.,
New York 16, N. Y.

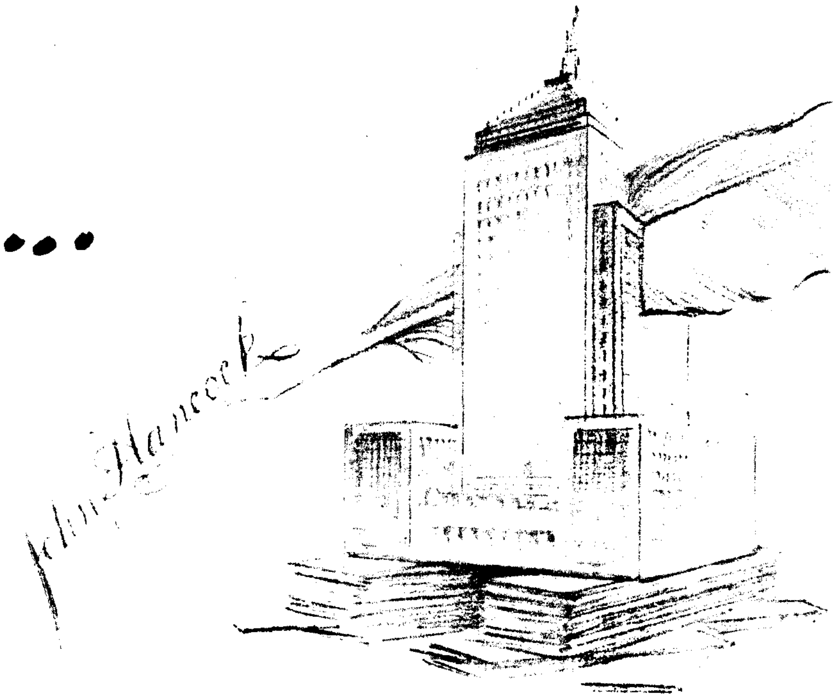
incabloc

Protects the Life of Your Watch

Latest in a series featuring Top Secretaries in American Business Firms . . . including, among others, Northrop Aircraft Inc., Hoover Company, Santa Fe Railway and Westinghouse Electric Corporation

Top Secretary...

and thousands like her

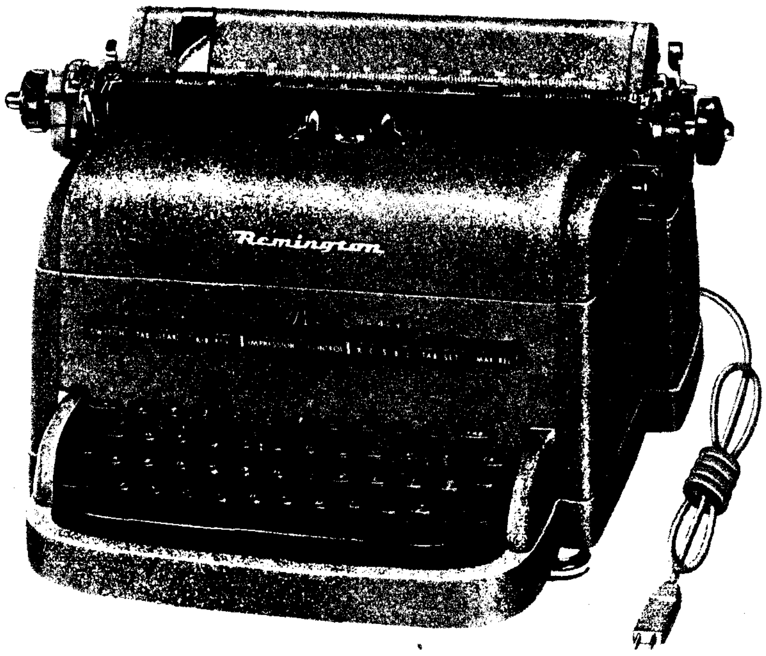


prefer the Remington

Electri-conomy

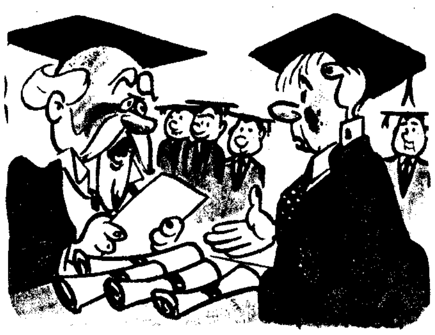
Today, insurance companies realize that it takes peak output in all their offices to achieve efficient, productive insurance operation. That's why top secretaries like Miss Hartley of John Hancock go for the speed and effortless typing of the Remington Electri-conomy -- those 15 or more clear carbons at a single typing -- this handsome "Executype" for letters of true distinction that will be signed with pride -- and that glorious "alive-at-five" feeling because electricity does the work.

Top Secretary DORIS HARTLEY, Secretary to Paul F. Clark, President, John Hancock Mutual Life Insurance Company says: "I like everything about the new Remington Electri-conomy typewriter—*the speed, the electric ease of operation, the beautiful letters and reports!*"



Remington Rand
INC.

THE FIRST NAME IN TYPEWRITERS



"Sorry James, we haven't got one for you . . . you flunked your Finger-Nail Test!"

"It's easy to see which one of these guys uses Wildroot Cream-Oil!"

"Well . . . Claude has *one* good habit . . . he uses *non-alcoholic* Wildroot Cream-Oil!"

REAMER KELLER

YOUR HAIR'S BEST FRIEND

WILDROOT CREAM-OIL HAIR TONIC
NON-ALCOHOLIC CONTAINS LANOLIN
GROOMS THE HAIR
RELIEVES DRYNESS
REMOVES LOOSE DANDRUFF
AS LITTLE AS 29¢ PLUS TAX

America's Favorite Hair Tonic!

Honest, I'm not much trouble . . .

He isn't, either, if you have sure, safe Sergeant's Dog Care Products to help keep him healthy and happy. There's one for practically every need. Worms, for example, clear out quickly and surely with SURE-SHOT (for big dogs) and Puppy Capsules (for small dogs). Other products for fleas, insufficient vitamins, skin irritation, ear ailments. All veterinarian-certified. Relied on by dog owners for 77 years. **FREE:** Your dog care problems are answered by authorities in Sergeant's Dog Book. At drug or pet store —or write Sergeant's, Dept. D-5, Richmond 20, Virginia.

Sergeants DOG BOOK

Sergeant's® dog care products

hicle, not much larger than the rocket ship's third stage, but capable of carrying a crew of several people to a point beyond the rear side of the moon, then back to the space station. This vehicle will bear little resemblance to the moon rockets depicted in science fiction. There is a very simple reason: conventional streamlining is not necessary in space.

The space station, as mentioned previously, has a speed of 15,840 miles per hour. Our round-the-moon ship, to leave the two-hour orbit, has to have a speed of 22,100 miles per hour, to cover the 238,000-mile distance to the moon. This additional speed is acquired by means of a short rocket blast, lasting barely two minutes. This throws the round-the-moon ship into a long arc or ellipse, with its remotest point beyond the moon. The space ship will then coast out this distance, unpowered, like a thrown stone. It will lose speed all along the way, due to the steady action of the earth's gravitational pull—which, though weakening with distance, extends far out into space.

Roughly five days after departure, the space ship will come almost to a standstill. And if we have timed our departure correctly, the moon will now pass some 200 miles below us, with the earth on its far side. On this one trip we can photograph most of the unknown half of the moon, the half which has never been seen from the earth. Furthermore, we now have an excellent opportunity to view the earth from the farthest point yet; at this distance, it appears not unlike a miniature reproduction of itself (from the vicinity of the moon, the earth will look about four times as large as the full moon does to earth-bound man).

It is not necessary to turn on the space ship's motors for the return trip. The moon's gravity is too slight to affect us substantially; like the shell which was fired vertically, we simply "fall back" to the space station's orbit. The long five-day "fall" causes the space ship to regain its initial speed of 22,100 miles per hour. This is 6,340 miles per hour faster than the speed of the space station, but, as we have fallen back tail first, we simply turn on the motors for just two minutes, which reduces our speed to the correct rate which permits us to re-enter the two-hour orbit.

* * *

Besides its use as a springboard for the exploration of the solar system, and as a watchdog of the peace, the space station will have many other functions. Meteorologists, by observing cloud patterns over large areas of the earth, will be able to predict the resultant weather more easily, more accurately and further into the future. Navigators on the seas and in the air will utilize the space station as a "fix," for it will always be recognizable.

But there will also be another possible use for the space station—and a most terrifying one. It can be converted into a terribly effective atomic bomb carrier.

Small winged rocket missiles with atomic war heads could be launched from the station in such a manner that they would strike their targets at supersonic speeds. By simultaneous radar tracking of both missile and target, these atomic-headed rockets could be accurately guided to any spot on the earth.

In view of the station's ability to pass over all inhabited regions on earth, such atom-bombing techniques would offer the satellite's builders the most important tactical and strategic advance in military history. Furthermore, its observers probably could spot, in plenty of time, any attempt by an enemy to launch a rocket aimed at colliding with the giant "wheel" and intercept it.

We have discussed how to get from the ground to the two-hour orbit, how to build the space station and how to get a look at the unknown half of the moon by way of a round trip from our station in space. But how do we return to earth?

Unlike the ascent to the orbit, which was controlled by an automatic pilot, the descent is in the hands of an experienced "space pilot."

To leave the two-hour orbit in the third stage, or nose section, of the rocket ship, the pilot slows down the vehicle in the same manner in which the returning round-the-moon ship slowed down. He reduces the speed by 1,070 miles per hour. Unpowered, the rocket ship then swings back toward the earth. After 51 minutes, during which we half circumnavigate the globe, the rocket ship enters the upper layers of the atmosphere. Again, it has fallen tail first; now the pilot turns it so that it enters the atmosphere nose first.

* * *

About 50 miles above the earth, due to our downward, gravity-powered swing from the space station's orbit, our speed has increased to 18,500 miles per hour. At this altitude there is already considerable air resistance.

With its wings and control surfaces, the rocket closely resembles an airplane. At first, however, the wings do not have to carry the rocket ship. On the contrary, they must prevent it from soaring out of the atmosphere and back into the space station's orbit again.

His eyes glued to the altimeter, the pilot will push his control stick forward and force the ship to stay at an altitude of exactly 50 miles. At this height, the air resistance gradually slows the rocket ship down. Only then can the descent into the denser atmosphere begin; from there on, the wings bear more and more of the ship's weight. After covering a distance of about 10,000 miles in the atmosphere, the rocket's speed will still be as high as 13,300 miles per hour. After another 3,000 miles, the speed will be down to 5,760 miles per hour. The rocket ship will by now have descended to a height of 29 miles.

The progress of the ship through the upper atmosphere has been so fast that air friction has heated the outer metal skin of body and wings to a temperature of about 1,300 degrees Fahrenheit. The rocket ship has actually turned color, from steel blue to cherry red! This should not cause undue concern, however, inasmuch as we have heat-resistant steels which can easily endure such temperatures. The canopy and windows will be built of double-paned glass with a liquid coolant flowing between the panes. And the crew and cargo spaces will be properly heat-insulated and cooled by means of a refrigerator-type air-conditioning system. Similar problems have already been solved, on a somewhat smaller scale, in present-day supersonic airplanes.

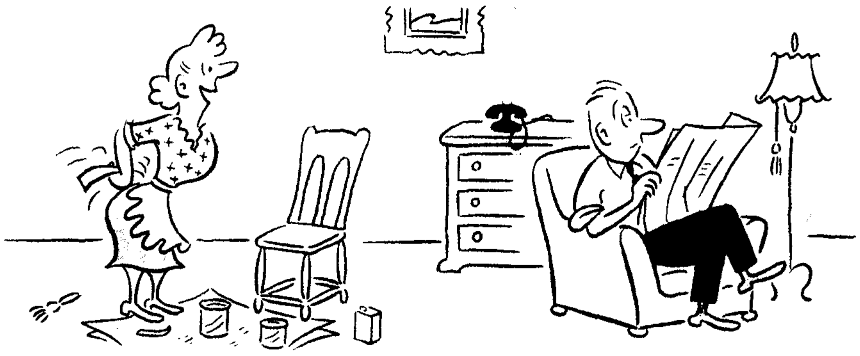
At a point 15 miles above the earth, the rocket ship finally slows down to the speed of sound—roughly 750 miles per hour. From here on, it spirals down to the ground like a normal airplane. It can land on conventional landing gear, on a runway adjacent to the launching site. The touch-down speed will be approximately 65 miles per hour, which is less than that of today's air liners. And if the pilot should miss the runway, a small rocket motor will enable him to circle once more and make a second approach.

After a thorough checkup, the third stage will be ready for another ascent into the orbit. The first and second stages (or tail and middle sections), which were parachuted down to the ocean, have been collected in specially made seagoing dry docks. They were calculated to fall at 189 miles and 906 miles respectively from the launching site. They will be found relatively undamaged, because at a point 150 feet above the water their parachute fall was broken by a set of cordite rockets which were automatically set off by a proximity fuse.

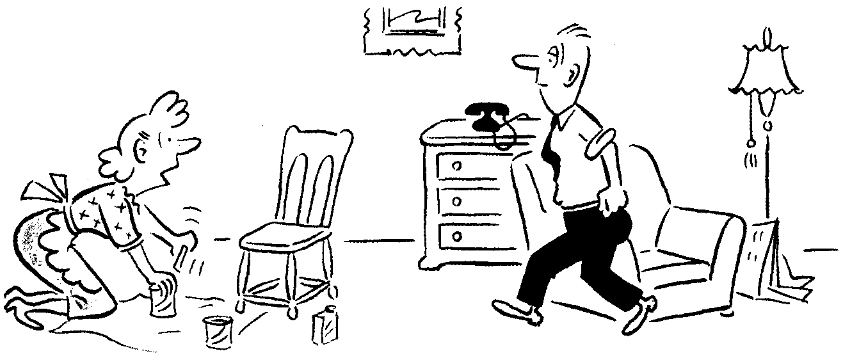
They, too, undergo a thorough inspection with some replacement of parts damaged by the ditching. Then all three stages are put together again in a towerlike hangar, right on the launching platform, and, after refueling and a final check, platform and ship are wheeled out to the launching site—ready for another journey into man's oldest and last frontier: the heavens themselves. THE END

HELPING HAND

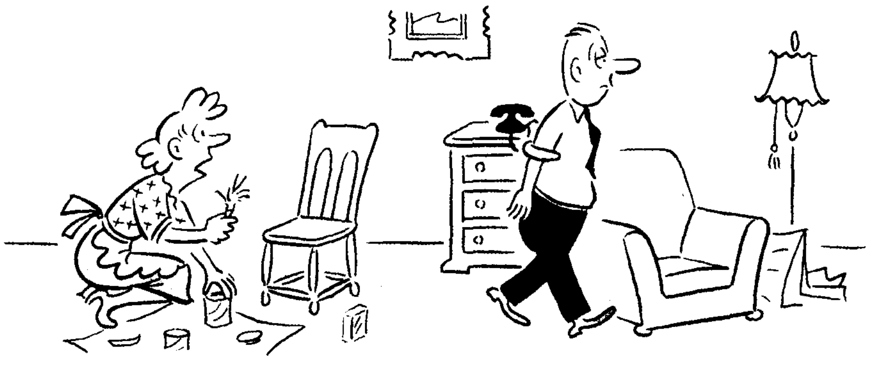
By GUS LUNDBERG



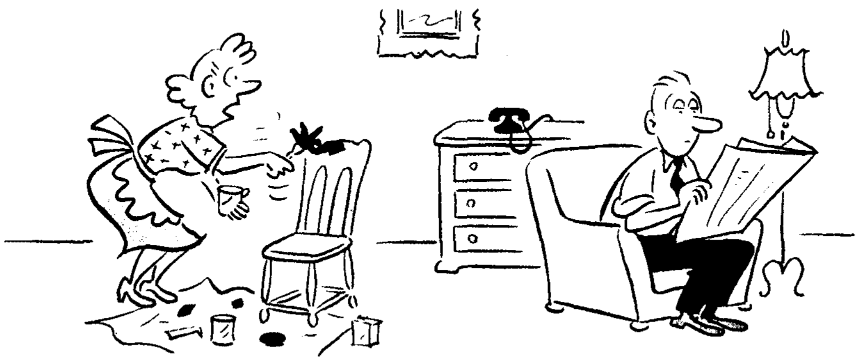
"Now just take it easy and relax—I'm going to be busy for a while"



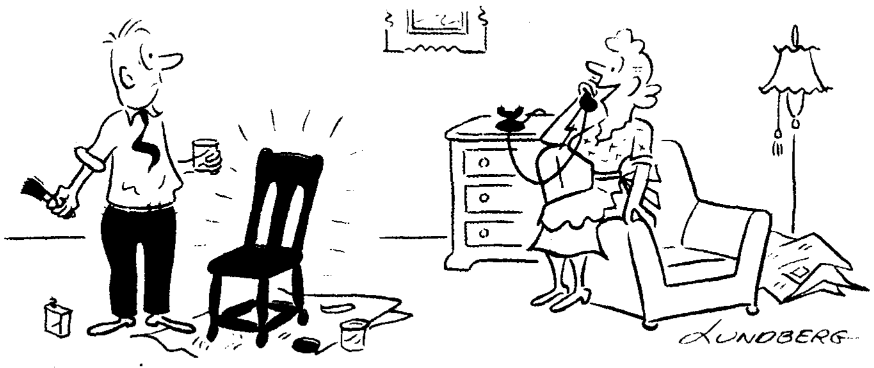
"Lid on this can seems to be stuck!"



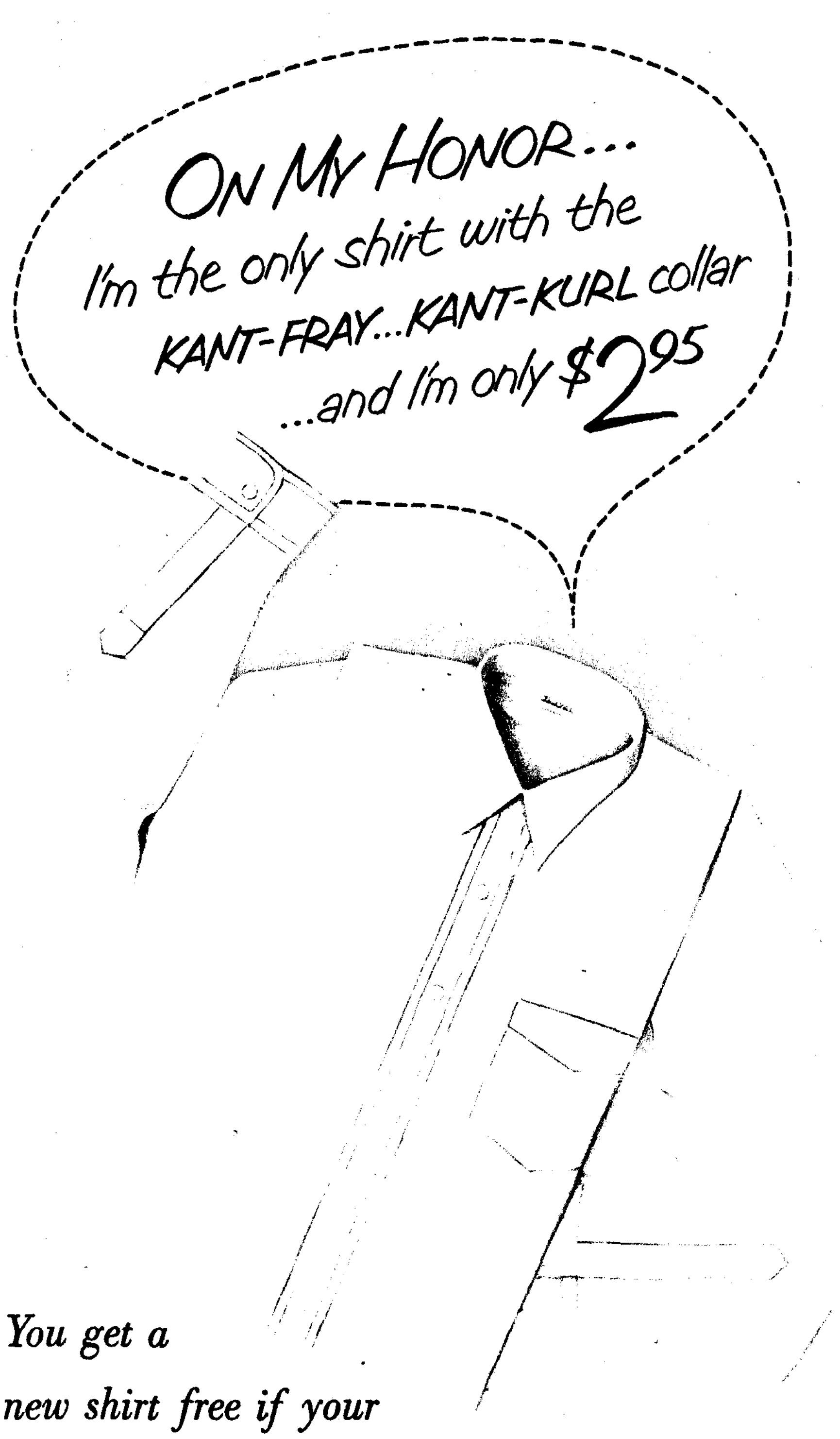
"This brush is all dried up. Do we have another?"



"Oh dear, I forgot to call Alice! Will you hold this brush a minute?"



"... Just a quiet evening at home—John is reading his paper and I've been painting furniture ..."


ON MY HONOR...
I'm the only shirt with the KANT-FRAY...KANT-KURL collar ...and I'm only $2.95

You get a new shirt free if your KANT-KURL KANT-FRAY collar does this or this

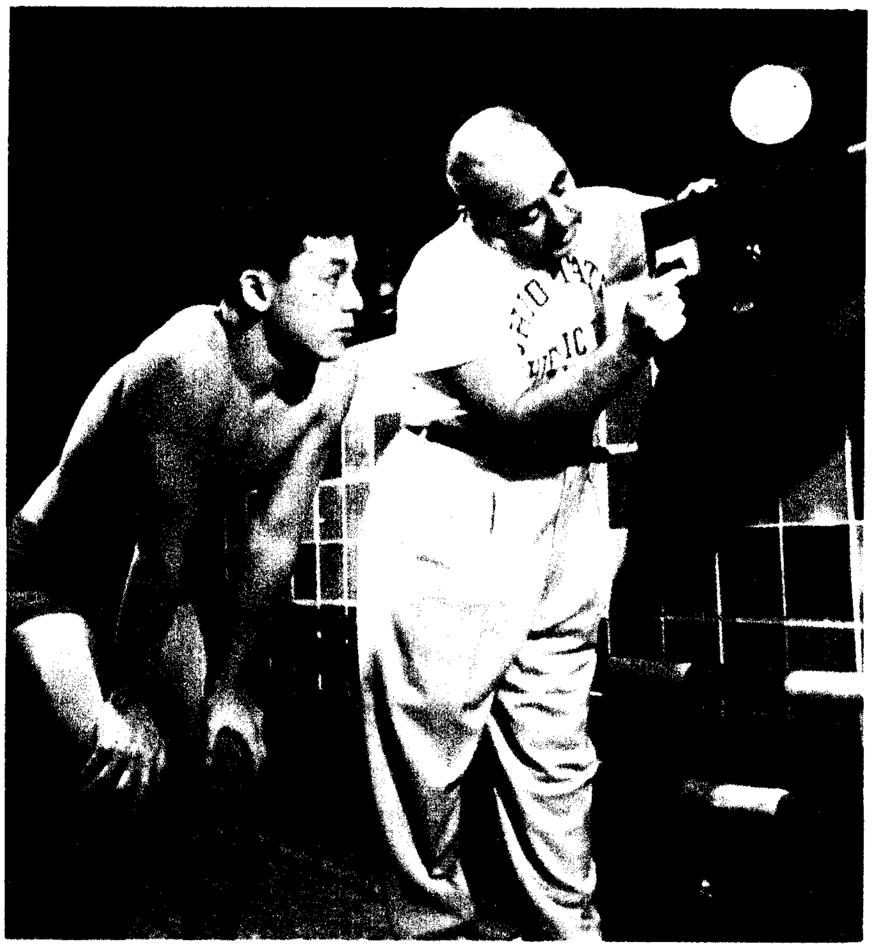
New exclusive collar guaranteed to stay down—outwears the shirt. This double strength collar is so strong . . . so durable it outlasted more expensive brand shirts in 2-year launderability tests. TruVal shirt is a beauty, too. Soft, white broadcloth, expert needling, Sanforized to keep its fit permanently. Tested and approved by the American Institute of Laundering. See this remarkable shirt value at your local men's store, or write to TruVal, 281 Fifth Ave., New York 16, N. Y.

Paragon Shirt $2.95 . . . . . . Fairflex Shirt $3.50

TruVal

shirts
sportswear • pajamas
ties

Ford spends a half hour daily gripping the "flutterboard" while he exercises his legs. Then he binds legs, exercises arms 30 minutes



After arm and leg workouts, Konno (shown with Ohio State coach Mike Peppe) races for an hour against beam from this swiveling flashlight

Paddling His Own KONNO

By BILL FAY

An aquatic flash from Hawaii, Ford Konno's a top candidate for Olympic swimming honors this year

SINCE enrolling at Ohio State University last September, nineteen-year-old Ford Konno, of Honolulu, has spent at least two hours every afternoon in or under water—mostly under.

Konno commences his hydraulic calisthenics with a chunk of wood resembling a housewife's ironing board. Using this "flutterboard" to support his arms and shoulders, Ford kicks himself up and down OSU's pool on sheer leg power for half an hour. Next, he discards the flutterboard, wraps a softly inflated rubber tube around his ankles, and traverses the pool for another half hour via arm power.

Once thoroughly warmed up, Konno settles down to serious swimming against a flashlight mounted on a mechanical swivel. This device (called a "pacer") throws a brilliant beam of light which sweeps the length of the 25-yard pool at any desired speed—usually, a 12-second-per-length rate for Konno's sprint trials.

Konno never beats his oscillating opponent. However, these grueling hour-long workouts develop the sustained speed and endurance which Ford possesses in amazing quantities for such a slender fellow (he's five feet six inches tall and weighs 145 pounds). Last summer, Ford captured National A.A.U. free-style swimming titles at both 800 and 1,500 meters by upsetting Yale student John Marshall, of Australia. What's more, Ford has turned an aquatic trick never before accomplished by an American swimmer—he whipped Japan's supposedly invincible Hironoshin Furuhashi at 1,500 meters during an exhibition meeting at Tokyo.

Judging by such performances as these, Konno should score some valuable points for the United States at the Helsinki Olympics this summer in the middle-distance events, which previously were regarded as a two-way fight between Furuhashi and Marshall. Konno is planning to enter the 400-meter and 1,500-meter American tryouts, which probably will be held in Detroit this July, and he's also aiming for a place on the 800-meter relay team. The actual Olympic events will be held in Finland the last week in July and the first week of August.

But right now, Konno is more interested in his impending clashes with Marshall in the national intercollegiate swimming championships, to be held at Princeton later this month, and in the National A.A.U. indoor meet at Yale early in April.

At the '51 intercollegiates, Marshall spearheaded Yale's team triumph by sweeping three free-style events—220 yards, 440 yards and 1,500 meters. Moreover, Marshall's spectacular 1,500-meter pace of 18 minutes 18.8 seconds eclipsed the fastest time of both Furuhashi (18:19) and Konno (18:44.4) for the metric mile (although Furuhashi and Konno made their marks outdoors, where times are normally slower).

This year, if Konno can subdue Marshall, Ohio's perennially powerful swimmers figure to recapture the intercollegiate crown they've held five times in the last seven years. However, Mike Peppe, Ohio's aquatic coach, is apprehensive. Oddly enough, Mike's afraid Konno hasn't been working hard enough.

"Two hours a day," broods Peppe, "may be too little water time to bring Konno to the peak form he exhibited beating Marshall last summer. Why, back home in Hawaii, where he didn't have to worry about schoolwork, Ford swam four hours a day every day for six years.

"Just watch him for a moment"—Peppe directed a visitor's attention to the pool where Konno was staging another losing battle against the pacer. "With Ford, swimming is all precision and timing. Sixteen strokes carry him exactly 25 yards. That's important, because the completion of his sixteenth stroke takes him to the end of the pool with his extended right arm in perfect position to execute a fall-away turn.

"Another thing," Peppe pointed out, "when Konno turns and pushes off from the wall, you'll notice he glides exactly six and one half yards before he starts stroking again. Even his racing starts are precisely timed to carry him exactly eight yards. If you tape-measured a dozen of Ford's practice plunges, they wouldn't vary six inches."

The precision of Konno's timing can be gauged by the log of the 220-yard free-style race in which he set an American record in Honolulu last March. Prerace planning called for him to travel the first 100 yards in 55 seconds, pass the 150-yard mark at 1:25, and finish at 2:06. Actually, Ford swam the first 100 in :55 (exactly on time), hit 150 at 1:25.1 (one tenth of a second late) and finished at 2:06.1 (still only one tenth of a second behind schedule).

"The key to competitive swimming," testifies Konno, "is in knowing how fast you're going. When I'm in racing shape, I can figure my pace for any 25 yards within a tenth of a second. You can't afford to speed in this business. If you swim too fast early in the race, you won't have any kick left for the finish."

Konno, whose Japanese parents emigrated to Honolulu in the early 1920s, is thoroughly unfamiliar with most of the tropical delights publicized in Hawaiian travel brochures. Ford lives within a 10-minute drive of Waikiki, but he's never ridden a surfboard or paddled an outrigger canoe; nor does he hula or play the ukulele. His first name isn't Hawaiian, either. Konno, Sr., a garage mechanic, named his son after the family's Model T.

Like many Hawaiians, *(Continued on page 82)*

PHOTOGRAPHS FOR COLLIER'S BY WERNER WOLFF

You say where .. we'll take you there

in *Smooth-riding* comfort

UNION PACIFIC RAILROAD

Send for
FREE Booklets
describing these
scenic regions

ZION • BRYCE CANYON
GRAND CANYON National Parks
CALIFORNIA
PACIFIC NORTHWEST
AND ALASKA
YELLOWSTONE
AND GRAND TETON
NATIONAL PARKS
Dude Ranches
OUT WEST
COLORADO
Sun Valley

It's easy to plan a wonderful vacation the Union Pacific way. Note the booklets shown here . . . select the region, or regions, in which you're interested . . . then fill in and mail the coupon.

Each booklet contains beautiful photos, tells you about the region and gives you other helpful travel information.

Finally, ask your nearest Union Pacific representative—or travel agent—to arrange your trip and make your reservations.

On the Streamliners or other fine Union Pacific trains, you'll ride smoothly over a cushioned roadbed . . . receive attentive service . . . and enjoy excellent dining-car meals.

UNION PACIFIC RAILROAD
Room 513, Omaha 2, Nebraska

I am interested in region named below.
Please send free booklet.

REGION________________________

NAME________________________

ADDRESS________________________

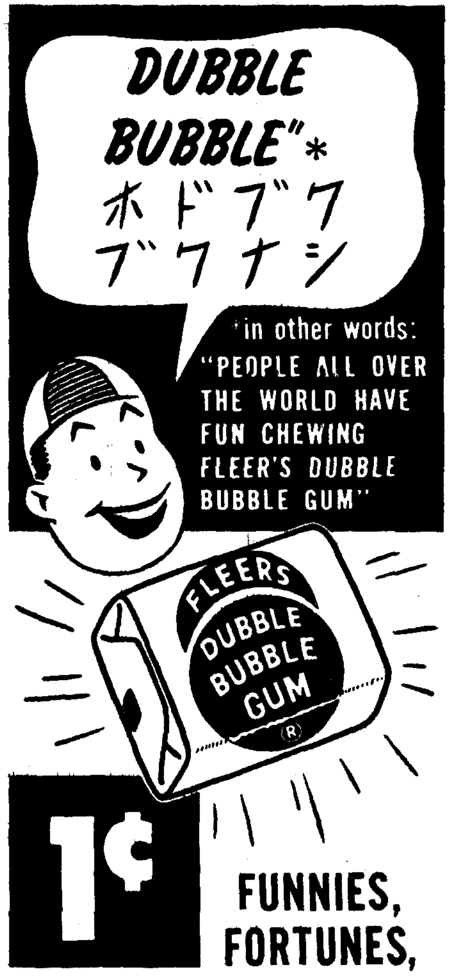
CITY____________ZONE____STATE________

Also send information about All-Expense Vacation Tours ☐

If student state age ___ and special material will be enclosed.

Hawaiian Room
DINE
DANCE
ROMANCE
THE LEXINGTON

HOME OF THE FAMOUS
Hawaiian Room
THE PERENNIALLY POPULAR
NEW YORK ADDRESS
Hotel Lexington
CHARLES E. ROCHESTER, *President*
George W. Miller, *Resident Manager*
LEXINGTON AVENUE AT 48th ST., N. Y. C. 17



DUBBLE BUBBLE"*
ホドブブ
ブブナシ
in other words:
"PEOPLE ALL OVER THE WORLD HAVE FUN CHEWING FLEER'S DUBBLE BUBBLE GUM"
FLEERS
DUBBLE BUBBLE GUM
®

1¢ FUNNIES, FORTUNES, FACTS ON EVERY WRAPPER!
FRANK H. FLEER CORP.
PHILADELPHIA 41, PA

Exposing the Psycho-Phonies

CONTINUED FROM PAGE 15

North Side. A correspondence school, of course, has no need for a football stadium or a million-dollar student center. But any institution calling itself a college would seem to need a laboratory and a library, at least. The College of Universal Truth occupies three small rooms, dingily and sparsely furnished. In the receptionist's office was a plump, pleasant secretary.

"I want to get a degree," I told her frankly, "even faster than usual."

"I'm sure that can be arranged," she said unperturbedly. She waved me toward a door across the hall. "Dr. Atzbaugh will see you right away."

The college president is a slender, short, mild-mannered man in his middle forties. On the walls of his office were half a dozen large religious chromes. On a corner of his desk were two movie magazines, The Book of Common Prayer and a pamphlet titled Money Making Schemes. Introducing myself under my legal name of Sidney J. Robbins, I told him I was anxious to become a doctor of psychology.

"That degree costs $110," he said. "Half is payable in advance."

I wrote a check and he handed me a stack of mimeographed study sheets, Seven Steps to Self-Sufficiency, Mind Mystery and Mastery, and Building the Healing Matrix.

"You'll have to write a term paper," he said. "After all, I can't just hand you a degree with nothing to show for it!"

Easy Way to Get a Doctorate

This was on a Monday morning. That night, copying liberally from the "lessons," I scribbled wildly what was perhaps the sheerest nonsense ever presented for academic credit. I handed it to him the next day and he gave me the rest of the course, which consisted of a few more mimeographed sheets under the heading of Metaphysiology. After skimming through this I scrawled a few more pages for my "doctorate" and turned them in to Dr. Atzbaugh on Thursday. He hardly glanced at them as he dropped them into his desk drawer.

"I can take your final payment now," he said.

"Where's the diploma?" I parried.

"Oh, we'll mail it to you," he assured me. "It's very handsome. Quite suitable for framing. The seal is in real gold leaf. It's guaranteed not to tarnish."

I fingered my checkbook reluctantly. "I'd much rather take it along with me," I said.

Dr. Atzbaugh fluttered his fingers and said, "What shall we do? Your diploma is still at the engraver's. And his shop is such a long way from here! I only go there about once a week."

"Call him," I suggested. "Tell him I'm coming to pick it up."

He made the telephone call. Then, to cover our embarrassment at having been so commercial about higher academics, we fell into conversation about the "doctor" and his school. He liked his work, he said. He had formerly been an itinerant reverend in the Southwest, but in 1936 he had "felt the call" to establish the College of Universal Truth. Although Atzbaugh writes degrees after his name, he told me that he is largely self-taught. "That's why I don't have any academic requirements for students here," he said. "After all, it's what's in the heart and soul that counts. Our poor heads can be filled in the space of a moment."

While I puzzled over that one, he went on to say that about half of the school's graduates are now in practice in occupations relating to the degrees they earned. In the early years, the D.D.—Doctor of Divinity—now selling at $165 each was the degree most frequently granted. Since 1942, he said, the Ps.D. (Doctor of Psychology) has been the most popular. His opinion is that the trend is due to the cycle of Hollywood psychothrillers and popular best sellers on psychology.

"Lots of our old D.D.s have come back to get Ps.D.s like yours within the past few years," he said. "I suppose that means that some are leaving the church for private practice." He cast his eyes piously toward the ceiling. "So long as our graduates are helping humanity toward the Light, I don't suppose it matters whether they are in the pulpit or out."

The following morning, in a large, busy and perfectly respectable print shop, an ink-spattered engraver handed me a sheaf of freshly manufactured diplomas stamped with the round gold seal of the college. "Here, you might as well take all of these back to the school," he said.

I thanked him and looked them over carefully. There were eight in all—two D.D.s, five Ps.D.s and one Ms.D. Nearly a thousand dollars' worth!

I returned to the college. My graduation was a touching ceremony. Dr. Atzbaugh signed my diploma. I signed my name to the second half of my tuition payment. We exchanged them. I was now a doctor. This was four days, almost to the hour, after my first visit.

We shook hands gravely. I turned to leave. "Say," Dr. Atzbaugh called after me, "how would you like to take an advanced course? We have a 25-lesson course in psychoanalysis for only $35!"

It is just that easy to get a quickie diploma and become a "doctor of psychology." Once the diploma is framed and on the wall, what happens next? What goes on between the psycho-quack and his unhappy victim?

Some of the quacks, the American Psychological Association advised me, are easy to spot. Ethical psychologists, like professional people everywhere, do not advertise. But most psycho-phonies have no such inhibitions. Their advertisements are everywhere—in cheap magazines, in reputable newspapers and trade journals, on local radio stations, but most of all in the classified telephone directory. They promise to cure everything from nail biting to sexual frigidity.

Actually, what do they do when they encounter a patient who is in need of serious help? With the assistance of Dr. Milton A. Saffir, director of the Chicago Psychological Guidance Center and former secretary of the Illinois Psychological Association, I prepared a hypothetical case—one that would lead any qualified psychologist to the conclusion that I was very ill.

Dr. Saffir told me that New York, Los Angeles and Chicago were probably the three centers of psycho-fraud activities. "Some really big money is being made in New York," he said.

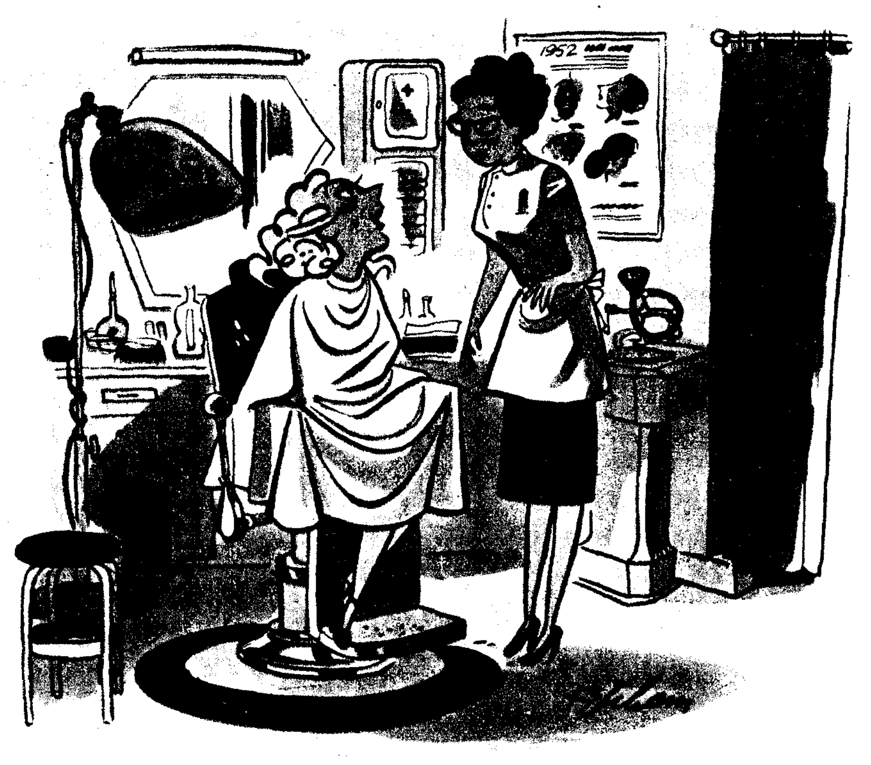
Accordingly, back in New York I selected the names of three psychologists from the Manhattan telephone book. Since New York State has no law to license and regulate nonmedical counselors, all these three had to do to set themselves up in their careers was to buy space in the classified telephone directory. To each one, I told the same story: About three months ago my wife had left me. Now she wanted a divorce. I wanted to win her back. But I had a great many worries and found it hard to concentrate on anything else.

Plenty of Horrible Symptoms

"You see," I said, leaning forward confidentially, "someone is trying to get me. I don't know who it is, but he watches me all the time. That's why I pull down all the shades and hang clothes over the mirrors. I'm followed whenever I go out on the street. Sometimes I'm sure my food is poisoned. I can tell when I taste it. Then I don't eat for days. I'm a very sick man. My head aches all the time. I have back pains. I can't sleep. Once I tried suicide. I often think about it. I want to get well. Can you help me?"

This was hardly a very severe test of any psychologist's competence. In fact, as Dr. Saffir had pointed out, a reputable psychologist would have referred me to a psychiatrist rather than attempt to handle me at all, since such symptoms usually warn of the onset of a very serious mental illness with the possible danger of suicide or homicide. I should probably have been in a hospital under observation. An ethical psychologist would have done his best to get me there, if I actually were suffering these symptoms.

My three "psychologists," however, tackled the case without hesitation. Or, rather, their only hesitation appeared when I brought up the subject of fees. Once I appeared to be on the hook, each one broke off abruptly from a discussion of my troubles to ask me how I earned my living, how much I made, whether I owned a house or a car and how many dependents I had. Not caring to reveal my identity as a reporter, I told them I was a clothing salesman.



COLLIER'S **"You needn't do too much. I'm meeting a sailor who's been at sea for seven months"** HANK KETCHAM

If You Need a Psychologist—

Dr. Fillmore H. Sanford, executive secretary of the American Psychological Association, advises:

“Don't choose a psychologist at random from the telephone book. Remember that the unqualified are listed beside the qualified.

“Call your city hospital or the hospital that is connected with your local university and ask the director to recommend several reputable clinical psychologists. You may also write the chairman of the department of psychology at your state university and ask him to recommend good practitioners in your city. Or make the same request of the national headquarters of the American Psychological Association, 1515 Massachusetts Avenue, N.W., Washington 5, D.C.”

Flatteringly, the first one I called on thought I could be taken for $25 a half hour. “If you want to get cured,” he told me, “you need the best. I have to charge at least $25 for a half-hour visit. It cost me plenty to study for this profession.” (The services of many of the best-qualified psychologists in New York can be obtained on a private basis for less than half that sum per hour.)

This man advertises himself as a Ph.D. and an Ms.D. The “Ms.D.” is a meaningless degree granted only by the psycho-quickie colleges. But his technique is not calculated to make any alma mater proud. As soon as I sat down on a large, overstuffed couch, he began to quiz me persistently about my sex experiences.

“Everything hinges on sex,” he assured me. “Don't hide a thing. Use any words you like. Don't worry, you can't shock me.” And he went on to ask me suggestive, intimate questions.

Dr. Saffir had warned me that many of the self-styled experts who have chosen this particular racket are themselves mildly or seriously disturbed and obtain a perverted satisfaction from hearing others discuss sexual intimacies.

“Now,” the “psychologist” said, “I am going to hypnotize you. Look into my eyes.”

Although I gazed obediently at him, I was relieved when nothing happened. Rather crossly, he ended the session, assuring me that he could cure me.

“Maybe 10 treatments,” he said. “Or more. You're very uncoöperative.”

Humbly, I asked for another appointment.

“Make sure you call well in advance if you can't keep it,” he cautioned. “I'm very busy and don't want to deprive others who need my help.”

A black leather appointment book in which he recorded the date of our next meeting was crowded with other names. At $25 a half hour, he needs to work only four hours a day, five days a week in order to make $52,000 a year.

In Impressive Surroundings

The second “doctor” I consulted was established in a handsomely decorated office in one of New York's swank professional and residential districts. Seated behind a large walnut desk, he looked more like a Broadway producer than a psychologist. A man in his thirties, he had a bush of dark hair and a mustache. He chain-smoked oval cigarettes, had a handsome ring on one finger and wore clothes that would be elegant, if they weren't a shade too sharp.

The degree on the wall behind his head proclaiming him to be a doctor of psychology was granted by the Neotarian College of Philosophy of Kansas City, Missouri. Among the quickie colleges it is small, relatively new, but definitely up and coming. Only that morning I had received a third letter from its president, Dr. Minor C. Hutchison, asking why I had not answered his first and second invitations to enroll.

The “doctor” proved to be a smooth, compelling talker. After hearing my same hair-raising catalogue of symptoms, he said soothingly that my case sounded fairly simple and a cure was almost certain.

“I've been a doctor for five years,” he told me, although by raising my eyes I could see that the date on his diploma was February, 1951. “I used to have my office in the business section but I moved here to be closer to my patients. I have a very rich clientele.” He named a well-known New York restaurateur, an equally famous hat designer and the wife of a city official. He shook his head over the last patient.

“She was in a bad way, drank all the time, couldn't stay with her husband, but I fixed her up.”

“I don't have very much money,” I said.

“For you,” he said, “I'll charge only $15 per hour.”

He scorned my recital of physical ailments, and said they were all in my mind and would soon vanish under his treatment.

“I use a mixture of hypnosis, analysis and body discipline,” he told me. “It may take months but don't worry, I'll cure you.” As I departed, he shook his finger at me in a fatherly way and said, “Now, no more thinking about suicide! Promise?”

I promised.

The Man With a Real Ph.D.

The third man I visited is probably the best qualified of the self-styled psychologists practicing in the New York area. He does have a perfectly legitimate Ph.D.—in Spanish literature! He earned it at the University of Havana.

His ad in the telephone book mentions three reputable colleges, two in New York and one in a distant state. I mistakenly assumed this indicated he had had some official connection with the psychology departments of these institutions.

Inquiry at the first college elicited the information that, during World War II, he was appointed to teach Morse code, then a preparedness subject in the institution's Extension Division. Plans for the course did not materialize, however, so he never actually taught any subject there, not even Morse code.

At the next college, the man's association with the psychology department was equally nebulous. He had studied there, taking courses in education and Spanish only, according to the dean of administration. And for three and a half years he taught classes in the Department of Education. The subject he taught was Russian.

A telegram to the third institution brought a crisp reply from the dean saying they had no record of the man either as a member of the faculty or as a student.

When I went to see this “doctor” I gave him the frightening story I had offered to the other “psychologists.” He told me I was pretty far gone and nothing less than his full four-month $375 course in hypnotism and autosuggestion would cure me.

“If you'd come to me six months ago,” he said, “I could have cured you for $250.”

All discussion of my case was held up while we worked out a financial arrangement. I gave him $5—all I had with me. He told me to bring $200 the next day. “You can pay the rest in weekly installments,” he assured me.

Our interview ended on that commercial note, and I did not go back.

New York City is not alone in its shameful tolerance for quack psychologists. Dr.

DISCRIMINATING PEOPLE PREFER
HERBERT TAREYTON

HERBERT TAREYTON
CIGARETTES
Cork Tip
MODERN SIZE
TAREYTON

MISS DENISE LAWSON-JOHNSTON, of New York and London society. Discriminating in her choice of cigarettes, Miss Johnston says: "I find Herbert Tareyton more enjoyable than any cigarette I've ever smoked."

Discriminating people prefer Herbert Tareyton. They appreciate the kind of smoking that only fine tobacco and a genuine cork tip can give. The cork tip doesn't stick to the lips . . . it's clean and firm. And discriminating people prefer Herbert Tareyton because their modern size not only means a longer, cooler smoke, but that extra measure of fine tobacco makes Herbert Tareyton today's most unusual cigarette value.

THERE'S SOMETHING ABOUT THEM YOU'LL LIKE

Copr., The American Tobacco Company

Ideal DOG FOOD
Ideal TV News
MISS TABLESCRAPS
FINAL JUDGING
Ideal
GOOD
FAIR
HIGH
WOW
APPLAUSE METER
...AND NOW-MISS Ideal!
MISS Ideal
YES— THE TOP PRIZE FOR ANY DOG IS Ideal
Ideal DOG FOOD
Ideal GIVES ME PETS APPEAL!
SMELL ITS CLEAN WHOLESOME MEATY AROMA
Ideal DOG FOOD

CANINE QUEEN WINS Ideal JACKPOT

Ideal

THE 7-COURSE MEAL

WILSON & CO. INC.

ANOTHER WILSON QUALITY PRODUCT

Edward J. Shoben of Teachers College, Columbia University, discovered that in Los Angeles fewer than 10 per cent of a group who listed themselves as clinical psychologists had adequate training. Only a fifth belonged to the American Psychological Association and only a sixth had a graduate degree in psychology.

Among those Dr. Shoben found practicing psychology were an artist, a farmer, an osteopath, a bank teller, a lawyer, a musician, an auditor and a plumber. Five refused to give their former occupations and one said he had no previous experience in anything. Dr. Shoben's survey revealed that the fees ranged from $3 to $25 an hour. The average charge was $9. In Boston, Lowell Trowbridge interviewed 70 men and women engaged in counseling activities. Only one had a doctor's degree in psychology from a recognized college.

In Cincinnati, Dr. Henry David studied the individuals and organizations listed as psychologists in the classified telephone directory. Only a third were American Psychological Association members. One "doctor" was listed elsewhere in the directory as a registered masseur.

Quacks' Errors Are Revealed

If the "symptoms" I related to the quacks had been real, I might have suffered considerable harm from my visits to them. According to Dr. Molly Harrower, chairman of the Joint Council of New York State Psychologists, my quack doctors made the following four errors:

1. Although I complained vigorously of aches and pains, there was no insistence upon a medical checkup prior to offering an emotional diagnosis of my troubles. Many emotional troubles, notably spells of gloom, temper tantrums and much marital discord, are sometimes found to be outward symptoms of such serious physical disturbances as diabetes, tuberculosis and even brain tumors.

PET HATE

—the kind of guy who comes around
With "sound advice" that's mostly sound.

—RICHARD F. ARMKNECHT

2. They flatly promised to cure me. An ethical psychologist may say, "I think you can be helped if you can co-operate," but will never promise a cure nor make any guess as to the number of hours of therapy that will be needed.

3. They discussed their other patients. I might reasonably conclude that my confidences would also be violated and, quite possibly, used for blackmail.

4. They failed to recognize that the symptoms I presented were those of a very serious mental illness. Psychologists are not mind readers. They had no way of knowing that I was faking. If I had been telling the truth, then I needed emergency help and probably should have been hospitalized at once.

What keeps this horde of charlatans, trafficking in human tears, in business? Partly, it is the old law of supply and demand. The National Association for Mental Health estimates that one out of every 20 Americans will at some time in their lives feel the need for emotional counseling, or psychotherapy. But there are present in the United States only 10,000 qualified mental health workers and only 5,000 of these are in private practice.

Because each case, when properly attended to, takes a great deal of time, their appointment calendars are crowded, and there is often a three- to six-month wait at clinics. Nor do they hand out sirup and sunshine—they deal, like any ethical person, in blunt truths. It is no wonder, says Dr. Harrower, that many patients are diverted on their way to seek qualified help or, when they finally get there, become discouraged. These are particularly easy pickings for the phony who promises a sure, quick cure.

The American Psychological Association and the American Medical Association do what they can to black-list the quacks. In their files are such reports as the one turned in by a woman who said that a self-advertised "professor" of psychology had received her in the bedroom of his own apartment, chaperoned only by an elderly, half-deaf woman who remained discreetly *in the front room*.

The names of known quacks are added to the black list of the A.P.A. and the A.M.A., but this kind of ethical policing by professional associations is not sufficient protection for the public. The medical malpractice laws now in force are also largely helpless, for most of them were passed half a century or more ago, before psychology was recognized as a science.

Legislators in a number of states have attempted to deal with the psycho-phonies. Minnesota, Connecticut and Virginia have laws providing for the certification of qualified psychologists, but there is nothing to prevent the uncertified, unqualified ones from continuing to practice. In Kentucky a law is on the books that was intended to close down on the quacks, but, in the opinion of the Columbia Law Review, its provisions are sufficiently confusing to permit charlatans to slip through.

Only one state in the Union—Georgia—has a law that requires the licensing of psychologists. As one psychologist puts it, "In nearly every state your plumber, your electrician and your barber are licensed. We would like to be treated as though our work were at least as important as theirs."

Although it is obviously more effective for control laws to be passed on the state level, at least *one city* has acted when the state has failed. In 1948, the city of San Diego, California, over the bitter opposition of several known psycho-phonies, passed a city ordinance setting up a licensing board to regulate psychological counselors.

The results were immediate. Within three months, almost half of that city's psychologists left town rather than face the licensing board. They did not, as had been feared, set up offices in the city's suburbs but, apparently feeling that they had been thoroughly discredited, vanished.

The A.P.A., painfully aware that the activities of the psycho-quacks are smearing the profession, is co-operating with those psychological organizations which are attempting to introduce licensing or certification laws into their state legislatures. It will be a long, tough job, but help is on its way from another quarter.

The Committee on Fraudulent Schools and Colleges of the National Education Association, headed by Dean James B. Edmonson of the University of Michigan School of Education, has declared the existence of thousands of phony diplomas to be a disgrace to the standards of higher education in this country and is demanding legislation, state by state, that will close up the quack colleges.

"In many states," says Dean Edmonson, "the laws chartering educational institutions are wholly inadequate." His committee has found that the usual way for a quack college to get its charter is to write to the state licensing bureau, declare itself to be a nonprofit educational institution and enclose five to twenty-five dollars. Back comes the charter by return mail.

Even in those states where there are reasonably good educational laws, public prosecutors are squeamish about touching the psycho-phony colleges, for many of these institutions are shrouded in a protective cloak of religion. The names they choose often include words that have a vaguely Biblical connotation such as "truth," "divine" or "universe." Crosses and other religious symbols dot their stationery. The dean or president frequently includes a D.D. among the phony degrees he sprinkles after his name. In court, a clever defense lawyer can make it appear as though religion itself were under attack.

At present, only the Federal Trade Commission offers any real threat to the quickie colleges. In recent years it has used its power over interstate commerce to file complaints against the educational activities of the Joseph G. Branch Institute of Engineering and Science in Chicago, Western University, Inc., in San Diego, Temple Bar College in Minneapolis, and the Taylor School of Bio-Psychology, Inc., in Chattanooga, Tennessee. Only one of the four—Temple Bar College—closed following the FTC's action. Branch Institute and Western University, as of this writing, are still operating, shorn of one or two very objectionable features. The case against the Taylor School was dismissed, for the FTC felt that the public interest was not sufficiently involved to justify action.

An attorney who has conducted many of the FTC's trials of psycho-phony schools says the prosecution often breaks down because few witnesses are willing to appear.

"The men and women who go after phony degrees for commercial purposes know just what they're doing," he points out. "Why *should* they complain? They aren't after education. The degrees are what they want and they get them."

Even a court victory by the FTC does not always result in a long-range win. After many months of investigation, the FTC was successful in its case against the McKinley-Roosevelt University in Chicago. McKinley-Roosevelt was ordered to cease and desist from calling itself a college, university, institute or any similar title implying an institution of higher learning and to stop making that implication by granting degrees.

The school didn't fight the order. It didn't have to. Gracefully, and almost unnoticeably so far as the public was concerned, it changed its name to McKinley-Roosevelt, Inc. Its neat new catalogue makes no mention of doctorates or degrees. But pasted on page 8 is a mimeographed four-line slip of paper inviting students who wish to earn a degree to write to the secretary of the corporation.

State Law Reforms Needed

The FTC, helpless to stop such circumventions, would like to get rid of the quickie college headache. The agency looks hopefully toward such groups as the A.P.A. and the Committee on Fraudulent Schools and Colleges to bring about state law reforms.

Says the FTC lawyer, "So long as the degree peddlers are able to get state charters without having qualified laboratories, libraries and decent standards for enrollment and graduation, just so long *will* we have to cope with these wretched diploma mills and with the psycho-phonies they turn loose upon the public."

Dr. Fillmore H. Sanford, the A.P.A.'s executive secretary, believes that it will take the concerted efforts of reputable psychologists, legislators, the police and the general public to deal a death blow to the psycho-phonies. He proposes this program:

1. Increase the facilities for training competent psychologists.
2. Educate the public to the dangers of taking emotional problems to unqualified counselors.
3. Induce all advertising media to reject ads submitted by unqualified psychologists.
4. Enact state laws to determine who has the right to call himself a psychologist—and provide stiff fines and prison sentences for violators.

"Until these stringent measures are put into effect," says Dr. Sanford, "the psycho-phony will continue on his dangerous, profitable path, fleecing millions of sick, unhappy people. The time has come to put him where he belongs—among the discredited ranks of the fortuneteller and the snake doctor." THE END

"I CAN COUNT on our mem[illegible] up to the letter and spirit of all regulation[illegible]ng the sale of liquor. Part of my job is to be s[illegible] informed."

"A RECENT CHRISTMAS was particularly bright in twenty-three Philadelphia orphanages, when each one received a television set from our association."

IF YOU DRINK, BE MODERATE

"WE TAKE PART in the annual Safety Education Week, sponsored by the Philadelphia Safety Council. Here we emphasize that drinking and driving don't mix."

We do not want
the patronage of
the few who abuse
the right to drink

TODAY'S LEGAL LIQUOR INDUSTRY stands for the encouragement of moderation . . . the licensing of only orderly places of business . . . the strict observance and enforcement of all liquor laws and regulations.

[illegible] McGINN, SECRETARY OF U.T.O.P., TELLS A PROSPECTIVE MEMBER WHAT HIS ASSOCIATION STANDS FOR

"PUBLIC GOODWILL IS OUR FIRST JOB!"

"I'm Emmett McGinn, of Philadelphia. My father and I have owned a tavern here for fourteen years.

"Dad runs the tavern and I spend most of my time as executive secretary of the United Tavern Owners of Philadelphia. We have one of the largest local retail liquor dealers' associations in America.

"You'll find hundreds of other local liquor trade associations all over the country, some with a dozen or so members, others big ones like ours. I thought you might like to know why they were organized and what they do.

"Take our association as an example; we're typical. First off, we require our members to obey a strict code of business ethics: No sales to minors . . . rigid observance of all liquor laws . . . the maintenance of clean and orderly places of business.

"But that's just the beginning. Every year we actively cooperate in some 18 different local and national charity drives. We participate in Philadelphia civic events. As association secretary, I sit with the Armed Forces Disciplinary Control Board and am a member of the Philadelphia Civil Defense Unit.

"Why do we do these things?

"Because, like businessmen everywhere, we know that public goodwill must be earned. Today the legal liquor industry is one of the country's major economic assets—in jobs, in payrolls, in purchases from other industries and in its enormous tax payments to Federal, state and local treasuries. It's important to our national welfare that these contributions continue.

"We in the industry are trying to insure their continuance by conducting our affairs as every good businessman and good citizen should."

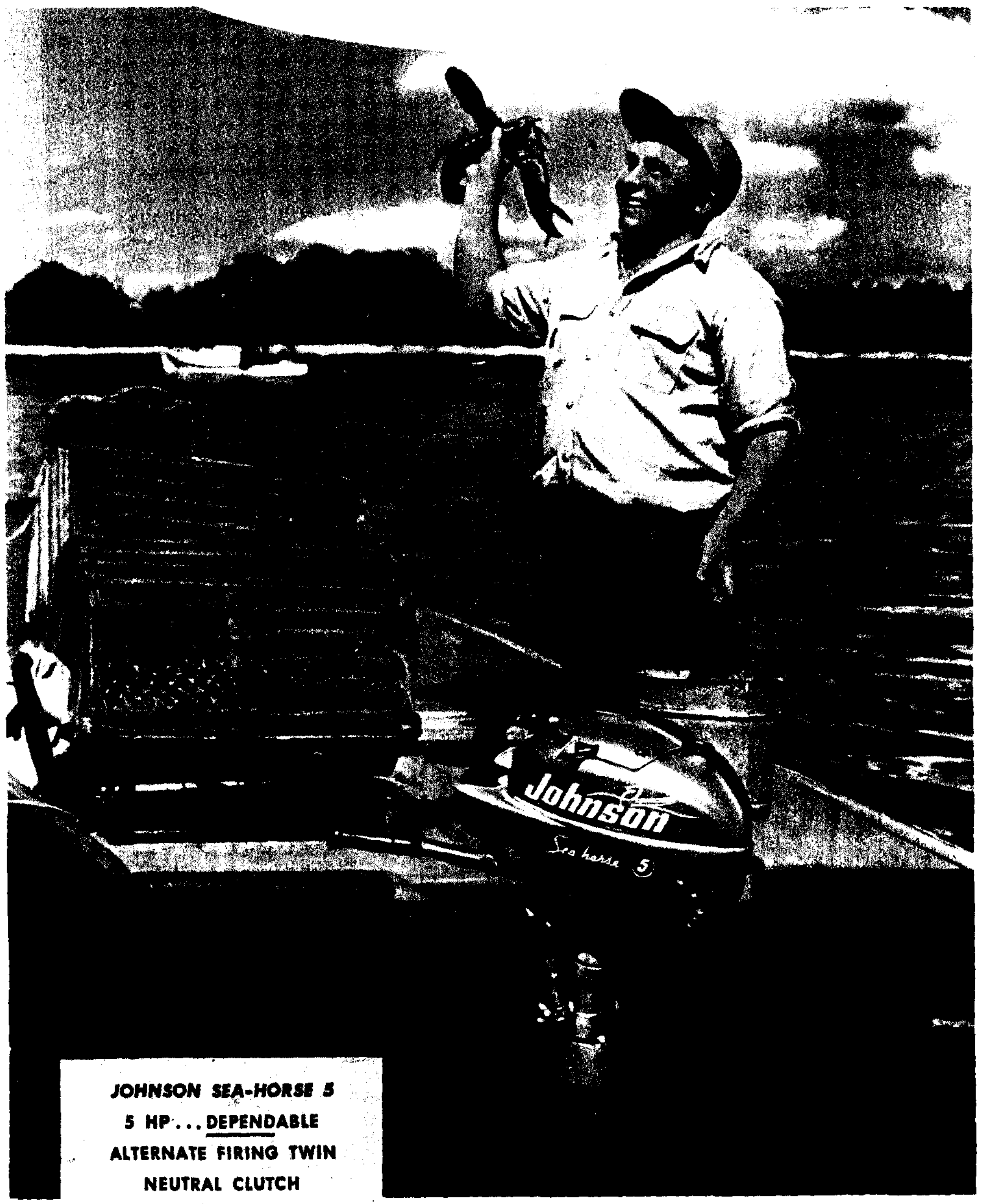
MR. McGINN'S MESSAGE IS SPONSORED BY

LICENSED BEVERAGE INDUSTRIES, INC., 155 EAST 44th ST., NEW YORK 17, N.Y.

IN BEHALF OF THE LEGAL PRODUCERS AND DISTRIBUTORS OF ALCOHOLIC BEVERAGES.

IT'S AMERICA'S
LARGEST SELLING
OUTBOARD MOTOR

Johnson Sea-Horse 5



JOHNSON SEA-HORSE 5
5 HP... DEPENDABLE
ALTERNATE FIRING TWIN
NEUTRAL CLUTCH
NO SHEAR PIN WORRY
FULL PIVOT REVERSE
SYNCHRO-CONTROL
AND ONLY $187.50*

FOR 1952—4 GREAT ALTERNATE FIRING TWINS

SEA-HORSE 3—3 hp. *New.* Less than 30 lbs.! Johnson Angle-matic Drive $145.00*

SEA-HORSE 5—5 hp. Known 'round the world for its dependability $187.50*

SEA-HORSE 10—10 hp. Gear Shift. Mile-Master Fuel Tank. Brilliant! $295.00*

SEA-HORSE 25—25 hp. Less than 4 lbs. per hp.! Gear Shift. Mile-Master Fuel Tank. Synchro Twist-Grip Speed Control. Sensational performance and value! $390.00*

Ask Commercial Users...
They Know!

This brilliant outboard motor does so much so well, it outsells *any* model of *any* make. It is by far the leader in the popular size range (from 4.0 to 7.5 hp. inclusive). Yachtsmen favor it. Fishermen love it. Commercial users, who run their motors more in a single day than many sportsmen do in a full season, choose it for economical, DEPENDable water transportation in rugged going everywhere. Ask your Johnson Dealer. Look for his name under "Outboard Motors" in your classified telephone directory.

JOHNSON MOTORS, 300 Pershing Rd., Waukegan, Ill.
Johnson Motors of Canada, Peterborough

Free! The New Sea-Horse Handy Chart describes all the motors in detail. Write today!

OBC certified brake hp. at 4000 rpm. *All prices are f.o.b. factory, subject to change without notice

Paddling His Own Konno

CONTINUED FROM PAGE 76

Ford started swimming around the docks when he was just a youngster. At eleven, he joined a group swimming class at Nuuanu Y.M.C.A. Since then, he hasn't enjoyed Hawaii's celebrated ocean waters more than a dozen times. "Waikiki's wonderful," Ford admits, "but I'm strictly a pool swimmer. You can't develop a relaxed, smooth stroke in surf. Besides, salt water is too buoyant; I get a better workout in fresh water."

Konno admits his brand of swimming is hard, lonesome work. "Sometimes," he says, "you splash around for three hours without speaking to anybody. When you stop, your ears are ringing so much you can't hear a thing.

"All the time you're in the water, you're concentrating on smoothing and synchronizing your leg and arm movements. And finally, you get yourself into a groove, so that no matter how tired you feel, you can keep up a smooth, relaxed stroke."

Twice last summer, Konno lost consciousness from sheer exhaustion during long workouts. Teammates revived him by slapping his cheeks ("It wouldn't have done much good to have thrown water in my face," he explained later).

Despite the rigors of training, Konno likes the sport. "I enjoy swimming," he says, "and it's fun to win races. There are times when I feel lazy and have to fight myself to keep going, but my coach in Honolulu, Yoshi Sagawa, impressed on me the necessity of training if I was to win—and I want to win."

How Konno reached Columbus, Ohio, is an involved story which goes back to the summer of 1939, when Peppe chaperoned a team of U.S. swimmers and divers on an exhibition tour of South America. En route, Peppe, whose brother then managed Sammy Kaye's band, was struck by the combined hula and ukulele talents of his youthful free-style representative, sixteen-year-old Keo Nakama, of Maui, Hawaii.

Peppe, knowing that his brother would be interested in the lad, offered Nakama a swing-and-sway audition with Kaye. Nakama declined, but showed his appreciation for Peppe's friendly gesture three years later by enrolling at Ohio State, where he became the world's fastest distance swimmer. Keo also captained Peppe's 1945 intercollegiate champions and wrote lots of enthusiastic letters to his swimming pals back home. Result: half a dozen more talented Hawaiians followed Keo to Ohio, including the fabulous Bill Smith, who eventually won the 400-meter free style at the 1948 Olympics and smashed eight world middle-distances records for Peppe.

On returning to Honolulu two summers ago, Smith spotted Konno in a high-school meet and earmarked him for Ohio State delivery. Ford is enrolled at the College of Education, and after graduation would like to combine a business career with a job as a swimming coach.

Meanwhile, Peppe's rival coaches, who have never been altogether happy over his mid-Pacific talent hunts, agree that Konno shapes up as Mike's greatest Hawaiian import. Mike concurs, wholeheartedly.

"You know," Peppe confessed during a recent chilly afternoon in Columbus, "I can't teach this Konno anything about swimming. I just try to keep him out of drafts so he won't catch cold. I guess the most helpful thing I've done so far was to take Ford downtown and buy him a nice, warm muffler." THE END

My Brother's Widow

CONTINUED FROM PAGE 21

remember some of the burnt-acid wonders she had concocted long ago.

"You'll have to prove that." I sat down and watched her at the small bar. She had her tongue in the corner of her mouth as she measured, and her expression was one of little-girl intentness.

She poured two, brought me one, and watched me with a worried look as I tasted it. I grinned at her, and made a circle of my thumb and forefinger. She beamed back and sat opposite me.

"Quite a place here, Niki."

"It's too big, really. But Ken wanted a big house. I'll sell it, I guess."

"Then what?"

"I don't know. Go away when things are straightened out—and then come back to Arland, of course. Stanley thinks I should take an active interest in the company."

SILENCE grew around us. I liked her hair the old way better. The horse-tail effect might be fashionable, and it did make her face look more fragile, but it gave her a false air of composure.

"Do you like Florida, Gev?"

"It gets in your blood after a while."

"You'll go back, I suppose."

"I imagine so."

And once again, the silence. She looked down into her glass, half frowning. "Gevan, we could talk for hours and never say a thing, this way." She didn't look up.

"I know," I said.

"I should never have married Ken."

"Aren't you supposed to be the shattered widow?"

She looked up slowly. "Please, Gev. I know I hurt you. Let me say this."

"If you feel you have to."

"Six months after I married him, I knew it had been a mistake. But Ken loved me, and I'd hurt enough people. I tried to make him as happy as I could."

"Without too much success, perhaps?"

She gave me a narrow look. "You know how he was lately, then. I couldn't help that. I tried, Gev. God, how I tried! But he was too perceptive. This last year I think he guessed I was just pretending. It hurt him, but I never let him know that I regretted marrying him."

I drained the glass and set it aside. "Why *did* you marry him? I've never understood."

"Neither did I, for a long time. And then I saw it. Gev, I'm a terribly strong person. You know that. And so are you—a dominant sort of person, maybe stronger than I am. If I had married you, I wouldn't have been needed in that way. Ken was weaker, sometimes almost helpless. And my strength seemed to respond to his weakness. You see, he made me feel needed."

"Didn't I?"

"Not in the same way. But it was ghastly the way it turned out. Ken and I were trying to find the time and place to tell you. But you walked in on us. We were going to tell you that same night. The way it happened made it—nasty. I'll never forget that night."

"You're not the only one who won't."

"I have to be honest with you, Gevan. I had to tell you all this. I miss him dreadfully. He was sweet. But I didn't love him. I don't miss him the way I—missed you for four years. Darling, I can't look at you while I'm saying all this. If things had gone on, I think Ken and I would just have drifted apart. Separated."

"Then what would you have done?"

She lifted her chin quickly and looked straight at me. "I would have come to you, if you would have me. Does that help any?"

"I—I just don't know."

She pulled her legs up under her and adjusted her skirt over her knees. Her bare shoulders had that purity of line and texture that I remembered.

"But it's too late, isn't it, Gevan?" she asked softly, lowering her eyes again. She was there, three steps from me. Niki of the remembered lips, of the little way her breath would catch after she was kissed. Niki, my girl. Niki, my brother's widow. Three days a widow.

I stood up. "Let me make the next round," I said casually. Her eyes flicked up as I took her glass from the table near her. I saw the anger and the hurt. I took the glasses over to the little bar and dropped fresh cubes into the shaker.

She stood tall by the fireplace, leaning with one hand thrust against the mantel. Tires purred on the asphalt and a car motor stopped. A car door chunked. She cocked her head, turned and said, "Oh, that must be Stanley. I asked him to drop over to meet you."

"Is he bringing Fitch and Dolson?"

She laughed. "We're not ganging up on you, Gev. I told Stanley to come meet a nice guy." I had almost forgotten her laugh. Four years of being the charming young Mrs. Kendall Dean had made her manner more subdued, had taken away some of that young exuberance that had so attracted me. But her laugh was unchanged. It was husky and young and full of life.

"He'll want an old-fashioned, Gev. Bitters in the cupboard on the left."

I was puddling the sugar in a teaspoon of water when Stanley Mottling came in. No one had described him to me. I had expected one of those little hard-jawed men, drawn tight as piano wire. Mottling ambled in. He was vast and rangy and tweedy and shaggy. He looked half asleep. A young forty, with quiet, watchful eyes, and, in spite of tweeds that looked slept in, he carried himself in a distinctly upper-drawer manner.

Mottling was at least six four.

"Nice to know you, Mr. Dean. Damn' shame that it took a mess like this to bring you up here. Hope we get along as well as your brother and I did."

I said all the pat things while I tried to figure him out. The guy was likable. He had enormous charm and presence, without seeming to be conscious of either. And I resented how much he seemed to be at home. After he'd been in the room a few moments, he had become host in some subtle way.

I took the drinks over, and he sat facing Niki and me on the other couch. Both of them were set at right angles to the fireplace, with a coffee table between them.

THERE was one good quick way to find out about the man, and I took it. "I was disturbed, Mr. Mottling, to find that Tom Garroway had left us."

He nodded. "A hell of a shame. Good man, Tom. But he'd been spoiled. If I could have come here when things were more relaxed, I would have re-educated him."

"What makes you think he was spoiled?"

He smiled and shrugged. "Now you're letting yourself in for one of my pet management theories, Mr. Dean. I feel that industrial techniques have gone beyond the point where any one man should be given an engineering problem to work out. I operate on a team basis. Suppose you have a tool-design problem, a tricky cutting edge that has to be operated at high speed. I want to form a team of a mechanical engineer, a metallurgist, a practical shop man, and let them lick it. In the end it saves time, because the design that pleases all three of them will have the minimum of bugs. And Tom Garroway had been permitted to become a lone wolf. I just didn't have time to straighten him out."

It was one of those theories that sounded very plausible, and yet I didn't like it. "Same problem with Fitz and Poulson?"

His eyes narrowed a bit, and for a moment the real Mottling spoke. "I keep men around me that work with me, Dean, not against me." The real Mottling was a very impressive organism. Cold and direct and ruthless. A minor deity who would countenance no atheism. And then the mask was back on again, the mask of a big, shambling, tweedy guy, mild and amiable.

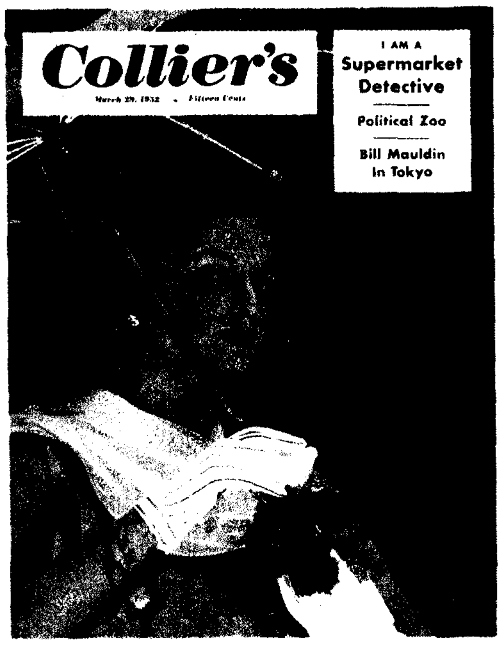
"I understand you've got quite a record, Mr. Mottling."

He shrugged again. "I've been lucky. I've gone into a lot of companies where they've been too close to some very obvious problems to see them. And pointing out the obvious is not any indication of genius."

"What was our obvious problem?"

"Your grandfather had certain management theories. Your father superimposed his theories on those. And then

Next Week



Bill Mauldin in Tokyo

I AM A Supermarket Detective

Political Zoo

NOW...LIGHT
WHEN YOU NEED IT!
from Power
"sealed-in-steel"
RAY-O-VAC
TRADE MARK
LEAK PROOF
FLASHLIGHT BATTERY
REG. U.S. PAT. OFF.
No. 2LP

Keep this Ray-O-Vac 2-cell flashlight handy in your home. Strong, spot-light beam.

they stay fresh—

Hold a Ray-O-Vac LEAK PROOF flashlight battery in your hand. See how strong and substantial it is . . . because it's *sealed in steel.*

Only Ray-O-Vac provides this sealed-in-steel protection. Always get genuine Ray-O-Vac LEAK PROOF flashlight batteries with . . .

1. Steel top
2. Multi-ply insulation
3. Steel jacket
4. Steel bottom

Each Battery Carries This Guarantee:
"If your flashlight is damaged by corrosion, leakage or swelling of this battery, send it to us with the batteries and we will give you FREE a new, comparable flashlight with batteries."

Only Ray-O-Vac LEAK PROOF flashlight batteries are sealed in steel!

Buy Spares—they stay fresh!

© 1952 BY RAY-O-VAC COMPANY, MADISON, WIS. RAY-O-VAC CANADA, LTD., WINNIPEG, MAN.

Relieve the PRESSURE of Neuralgic Pain!

● When the tense, pressing agony of neuralgic pain strikes, you want relief *in a hurry*. And here's a way to get it—*quickly, easily, effectively*.

Doctors generally will tell you that neuralgic pain may be largely caused by pressure. Sensitive nerves are irritated. Local areas become tender and swollen. That torture you feel is simply Nature's call for help.

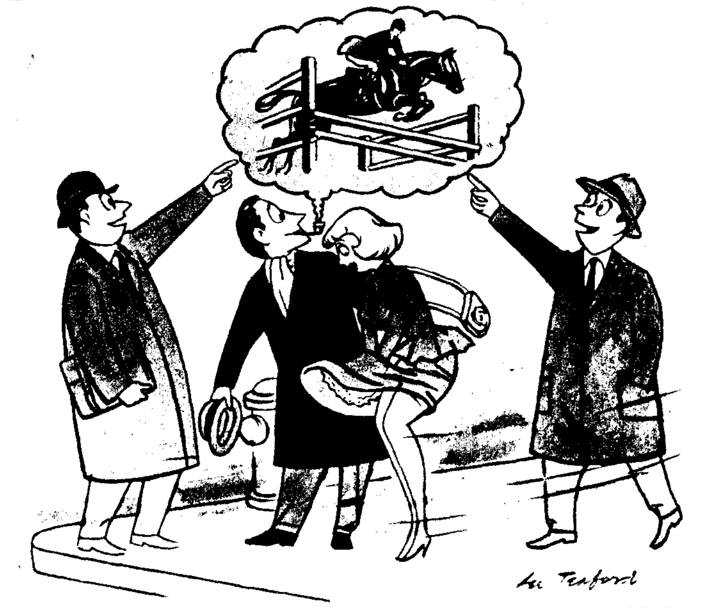
You can get blessed relief—*fast*—by rubbing Absorbine Jr. on the sore, swollen areas. It actually helps to *counter* pressure which may be causing your misery. At the same time, it warms and soothes those pain spots. The speed with which it works will amaze you.

Thousands rely on Absorbine Jr. for its quick, comforting relief from neuralgic and rheumatic pain, from sore, aching muscles. Only $1.25 a bottle at all drugstores. Get Absorbine Jr. today.

W. F. Young, Inc., Springfield, Mass.

Replacement or refund of money ★ Guaranteed by Good Housekeeping if not as advertised therein

ABSORBINE JR.



Look! Another man switched to Kentucky Club—the thoroughbred of pipe tobaccos

KENTUCKY CLUB
FOR PIPE LOVERS

DO IT TODAY! SWITCH TO MILD KENTUCKY CLUB

Notice how much better your pipe tastes—how much fresher your mouth feels when you switch to Kentucky Club. Send for free catalog showing fine pipes and how to get them at big savings. Mail Pouch Tobacco Co., Wheeling, West Va. Dept. 72

you and your brother added your ideas. The result was: no clear-cut lines of responsibility and authority. We have too many millions in defense contracts to continue to operate on that basis. I've been clearing out deadwood, defining lines of responsibility and authority, setting up standard production controls and ratios of accomplishment. All under your brother, of course. Whether I continue on here, and finish the program, is apparently up to you. From what I've seen, you did an adequate job when you were in control. I believe you should come to the plant tomorrow and let me explain in detail, then make up your mind."

"One thing puzzles me, Mr. Mottling. Why did Kendall bring you in?"

"He saw the expansion coming, and the new contracts that would be placed. It is a wise man who knows his own weakness. He had given up trying to get you back to help out, Mr. Dean. He had to find someone. I was recommended to him, and I happened to be free at the moment. He gave me almost complete authority."

"And so I should do the same?"

"I didn't say that. I said you should check on what I'm doing and see if you care to have it continue."

"That seems fair. I understand that one faction of the shareholders supports Walter Granby. Do you know why they are opposed to you?"

HE TOOK out a pipe, stuffed it, and lit it with a kitchen match. "Mr. Dean, in spite of the size of Dean Products, it has always had the flavor of a local concern. Local ownership. And, forgive me, a low-pressure operation. I've been ruthless, and I seem to have a flavor about me of foreign high pressure. Their response is emotional, primarily. Mr. Karch, who has been instrumental in organizing the minority stockholders, including the block held by your uncle, was annoyed because I fired his son. Granby is a symbol of the comfortable past, and I am a symbol of the uncomfortable future."

He was so very reasonable. I fought against liking him. And he had an excellent sense of timing. He glanced at his watch, got up, and knocked his pipe out in the fireplace. "I'm afraid you'll have to forgive me. I've got to get back to the office. Nice to see you, Mr. Dean. I can expect you in the morning?"

"I'll let you know. If I come around, I won't need a guided tour. I know my way around the place."

Niki walked him to the door. I heard the low murmur of their voices down the hallway. I wondered sourly if she were telling Mottling that she could handle me. I made two more Martinis.

Niki came back, and I heard Mottling's car going down the drive. "What did you think of him, Gev?"

"Very impressive."

"And terribly nice. He's talked to me, you know. He's told me how much he hates having to hurt people to get his job done."

"Did he protest a little too much?"

"Now, Gevan. Please don't be nasty. And please go to the plant and see what he's done. You'll need a special pass from Colonel Dolson to go to C Building, and that will give Colonel Dolson a chance to tell you how much Stanley has impressed him."

"What goes on in C Building that I should need a special pass?"

"Some kind of top-secret contract. I don't know what it is they're making. I remember Kendall saying how they had to buy a lot of special equipment to handle it. Dolson came the day the contract was placed, and a security officer, a Captain Corning, arrived the same week. I guess the Army has quite a staff there now."

"Niki, who recommended Mottling to Kendall?"

"I haven't the faintest idea, Gev."

I frowned down at my drink. She said, "Let's not talk about the plant and about Stanley Mottling."

"Let's talk about us? With violin music on the sound track?"

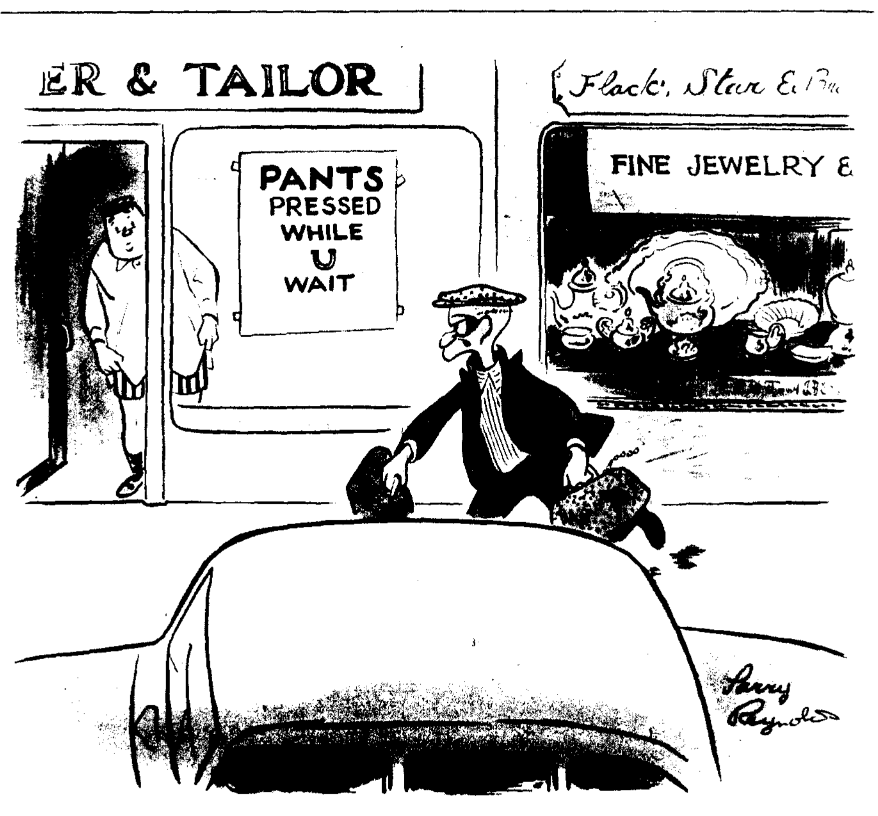
I saw the tears gather on her under lids. "Oh, Gevan, please."

"You see, Niki, I look at your tears and I don't know. I just don't know. You know how I feel? As though I have been a pimply young man swooning over the screen image of an actress for four years. And then I get a chance to meet her. And there's something frightening about her. She looks bigger than life size. Bigger and warmer and riper, and more overpowering. I can reach out and touch her, and then something will go pop and I'll be sitting here all alone, wondering what the hell."

"I'm real, Gevan."

"You're not. You're the compound image of ten thousand dreams I've had in the last four years."

BUTCH



"Oh fer gosh sakes! Then t'row out th' keys an' I'll make th' getaway alone"

COLLIER'S LARRY REYNOLDS

"Was it that bad?"

"Unpleasant little dreams, Niki. In the evening. I'd say, tonight they're going to bed early. Ken's in bed. Niki is at the dressing table, brushing that long black hair. Kendall is watching her reflected image in the mirror. Now she stands up and turns, faces him. Now they—" I lifted my glass and gulped the rest of my drink.

"Maybe I had dreams, Gevan. Maybe his arms around me were always yours, the moment I shut my eyes."

"There's something unclean about that."

"I couldn't help it. You know how we were. When we kissed, we knew how it was going to be. We knew how good it was going to be."

"And you married Ken, Niki. You married Ken. If you have a God, thank Him for a very narrow escape. You came close to dying that night."

"I saw it in your eyes."

I stood up. I walked steadily out of the room. I glanced back and saw her sitting there, and she was smiling, as though she knew that next time I would not have the strength to walk away from her. The maid brought me my hat. I walked out to the rented car.

I PULLED in by the curb. Joan Perrit, my former secretary, came across the sidewalk, too quickly for me to go around and hold the door for her. She slid in and hesitated a moment, then held out her hand, gravely, to be shaken. Girl had changed to woman. In the glow of the street lights, I saw that the last of that faint formlessness of childhood had gone, and her face was cleanly structured, the bones arched and delicate and good.

"It's nice to see you, Joan."

"Thank you, Mr. Dean. I'm glad you've come back. I'm sorry about your brother." She had gained in poise, in assurance.

"Thank you, Joan. We aren't employer-employee any more. Could you call me Gevan?"

"It's going to seem funny. Gevan. My friends call me Perry, Gevan."

"Look, Perry. I want you to understand something. If you were Mr. Mottling's secretary, I wouldn't do this. You would have to be loyal to him. But the switchboard connected me with Walter Granby's office."

"I'm his secretary. After you left, I was sent back to the stenographic pool. Mr. Granby requested me when his girl left. I—I know what you mean about loyalty, Mr.—Gevan. But I think of you as being a part of the company, not an outsider."

I asked her where we could go and talk and run little chance of being seen by the wrong party. She suggested a little bar-lounge on the south side, just over the city line. We went in and she led the way back to a booth in a corner. It seemed odd to be out in the evening with the efficient Miss Perrit. She had lost that coltish awkwardness and walked with long-legged grace.

When our drinks were on the way, we made casual, slightly uncomfortable small talk, both conscious of this change in our relationship. If her cigarette had not trembled in her fingers as I lighted it, I would have thought she was calm.

"Let's get to it, Perry," I said. "It will save time if you tell me what the rumor factory has to offer."

"For a long time, Mr. Mottling has been taking over more and more, and he was pushing your brother into the discard. Your brother didn't seem to mind, though. Mr. Granby was putting up the only real opposition to some of Mr. Mottling's policies. Mr. Mottling fired those men who were not officers of the corporation who disagreed with him, but he couldn't fire Mr. Granby, of course. Your brother's death brought the fight between Granby and Mottling out into the open. I know it only happened last Friday night, but by Saturday the battle lines were pretty well drawn. The way it stands, with your brother's wife backing Mottling, and with your uncle on Mr. Karch's side, you hold the balance of power in the emergency meeting called for next Monday morning. Mr. Granby naturally hopes you will support him. Mrs. Dean and Colonel Dolson, as well as Mr. Fitch and Mottling, of course, hope you will side with them. If you do, Mr. Granby will be retired, with a pension. If you don't, Mr. Granby will become president and Mr. Mottling will be out."

"Perry," I said, meaning to compliment her, "I had almost forgotten that supremely orderly mind of yours."

She flushed, and said almost with bitterness, "Oh, I'm a very orderly type."

"What happened to Garroway and Poulson and Fitz?"

"They wouldn't say yes loud enough to suit Mr. Mottling."

"Do you think Mottling is a good man?"

"I think he is an excellent executive, Gevan." She had a little difficulty saying my first name. It made her blush again. "His weakness is with people. The only loyalty he can understand is the loyalty he can get through fear."

"Doesn't that pretty much hamper his effectiveness?"

"Not as much as you would suppose. But he bothers me in one way. He seems a little too anxious about Dean Products for a man with his reputation. Too tense about taking over, if you know what I mean."

"I think I do."

She smiled. "I'm a secretary. It seems silly for me to be sitting here talking about the management level, doesn't it?"

"I trust your judgment, Perry. I always did." I looked at her more closely. She had become a very attractive young woman.

"Mr. Granby is not the man for the job either, Gevan. I wondered whether I should tell you that. In effect, I'm putting loyalty to you and to the firm ahead of loyalty to the man I work for."

"What's the matter with Walter?"

"He's a financial man, Gevan, not a production man. And the production picture is the crux of all current problems. He will try hard, but he just doesn't know enough."

"Then Mottling seems to be the choice, doesn't he?"

She took out another cigarette, and this time it did not tremble as I leaned over to light it for her. Her eyes were steady on mine. "I believe you should come back, Gevan. I think you owe it to yourself and to your family."

It made me angry. "Maybe you don't remember why I left."

"I know why you left. Maybe, to you, it was a vast drama or something. To me it was like a little kid crying. Until you left, I thought you were a man."

"What makes you think you can talk this way?"

"Because you brought me here to ask my opinion."

Her eyes didn't waver as I glared at her. And then I sighed. "Okay, Perry. You're right. I asked your opinion and I got it."

SHE leaned forward, eagerly. "You could do it. Mr. Karch would support you. Mr. Granby would talk him into it. With the stock you control, it would be a cinch."

"I've loafed too long, Perry."

"Nonsense! You don't lose ability by not using it. I haven't been swimming for two years, but I don't expect to drown the next time I'm in the water."

"I—I'm almost afraid to try to stay here, Perry. I left because I lost something. And now what I lost is available again. And I've got buck fever. If I'm in the same city with her, I—"

"Do you still want her?"

"Yes."

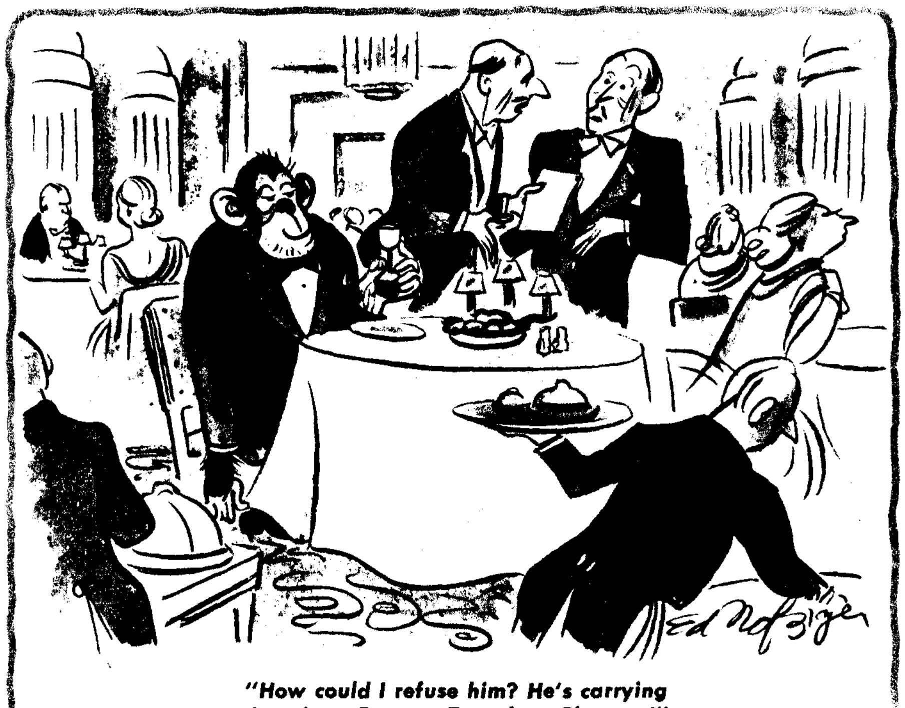
She stood up. "Thanks for the drink. I can get home from here all right. If you still want her, why don't you take her? I don't think it would be much of a trick."

I tossed money on the table. When I went out the door, she was a hundred feet down the sidewalk, walking rapidly. I got in the car and cruised up beside her. "Get in, Perry."

"Just go away," she said in a muffled voice.

"Damn it, get in this car!"

She kept walking. I speeded up and



"How could I refuse him? He's carrying American Express Travelers Cheques!"

No "monkey business" when you protect your travel cash with American Express Travelers Cheques. They're the *best-known*, most widely accepted cheques in the world! And they're 100% safe—if they're lost or stolen you get a quick refund.

Insist on American Express Travelers Cheques at Banks, Western Union and Railway Express offices. Only 75¢ per $100.

100% SAFE—EASIEST TO CASH

AMERICAN EXPRESS TRAVELERS CHEQUES

EXPRESS YOUR PREFERENCE FOR THE BEST!

this is an ALLIGATOR!

the coat you'll Live In around the clock around the calendar

Whatever the weather, your Alligator keeps you comfortable, fully protected. You'll like Alligator because you get fabrics of highest quality. You get styling that's really smart, with easy, casual lines. You get value that's truly outstanding. Choose *your* Alligator in the style, color, water repellent or waterproof fabric you like best—from $8.50 to $63.75.

America's Most Wanted Gabardine!
GOLD LABEL
$45.75
100% All Wool Worsted
Especially woven and water repellent processed for all weather wear.
With All Wool Zip-in Lining.....$56.75

BETTER DEALERS FEATURE
Alligator
RAINWEAR

THE ALLIGATOR COMPANY • ST. LOUIS • NEW YORK • LOS ANGELES

The ADAM CROSSTOWN $7.50
America's best seller because it's America's BEST BUY

ADAM HATS as low as $5

other ADAM values $6 to $10

- Made of genuine fur felt
- Rich lining . . . hand sewn in
- Expensively detailed thruout
- Widest variety of Spring styles and colors

ADAM . . First Name in Hats
Over 4500 stores and agencies—Coast to Coast

FOR THOSE WHO SEEK QUALITY FIRST

in hearing aids—
The extremely tiny
RADIOEAR Model 82
"ZEPHYR"

"Zephyr" is the smallest electronic Radioear hearing aid ever created . . . a masterpiece of quality engineering, quality appearance, quality performance. Marvelously clear . . . powerful—(even the quite severely deafened hear well with it) . . . truly economical in daily use . . . enduringly beautiful.

Radioear, with its patented, built-in Phonemaster, is not to be confused with ordinary hearing aids. Your hearing deserves Radioear quality. See the "Zephyr" at your nearest Radioear Counselor's office, or write for literature.

RADIOEAR CORPORATION
RADIOEAR BLDG., DEPT. C PITTSBURGH 16, PA.
"Trustworthy Hearing Aids Since 1924"

parked and got out and waited for her. She tried to brush by me. I blocked her. "Let me by," she said.

"What on earth is wrong with you?"

We were near a street light, but she wouldn't let me see her face. "Can't you guess, Gevan? Can't you guess?"

It hit me then. "Good Lord!" I said.

"Go on, laugh. Right from the very first day. And ever since, I've been telling myself it was a kid crush, a dopey office infatuation. Do you think that worked? It didn't do a bit of good. So I've had to live with it, and I hate it, and I'd give anything in the world if I could just get you out of—"

I held her and she leaned against my chest, sobbing. I steered her toward the car and got her inside. I went around and got behind the wheel. She dug in her purse and took out a handkerchief. She slowly brought the tears under control. She sniffed and blew her nose. Her breath caught in her throat a few times. She leaned back as though she had been physically beaten.

"I'm an awful fool," she said tonelessly. "Perry, I'm terribly sorry."

"I thought I was going to die when I heard you had got engaged to Niki Webb. Then I heard about you finding her with Kendall and beating him up and how she was going to marry Kendall. I lay on my bed and laughed out loud, because I was so happy that it had blown up in your face and it brought back all my hope. Oh, it was all set. You were going to look at me one day in the office and, like the movies, you'd suddenly see me for the first time and we'd live happily ever after. And then you resigned and went away. I told myself I couldn't want anybody who acted so weak and wallowed in self-pity. It didn't help, Gevan. It didn't help a bit. For four years I've prayed for you to come back. You're here, and she's free again, damn her. Take me home, please."

I couldn't adjust to her. I had seen her as a reserved girl, shy, awkward. I had never seen the flames underneath, had never suspected their existence. She came alive and crackled, her gestures electrically quick, her voice alive in contrast to the flat politeness of the office.

"I wish I could—"

"You can take me home. And when you go back to Florida with her, the two of you can joke about the sappy little secretary who had a crush on you and couldn't get over it to—to save her soul."

"Perry, I want to—"

She twisted toward me, making an audible sound of impatience. "*Will* you shut up and take me home, or do I walk? You don't have to moan over me. I'm a big girl now, and I'm not sorry for myself."

I started the car. She told me the address and how to find it, in a barely audible voice. It was a narrow, quiet street in the old residential section.

"Good night, Mr. Dean," she said, with a formality that was slightly grotesque.

"Good night, Perry." I stood by the car until the front door closed behind her and the hall light went on.

A LITTLE after eleven, I drove out the South Valley Road until I found The Pig And It. It was a small white building, garishly lighted, set in the middle of a huge floodlighted parking area. A juke, amplified beyond all reason, blared from speakers set on posts. A damp wind was blowing, and the girls looked chilly, full of false bravado in their crisp little mid-thigh skirts, white boots, Russian blouses and perky hats.

I said to the blonde who came up to my car window, "Is Lita on tonight?"

"Uh-huh—you wanner?"

"Please."

The blonde went back toward the other girls, rolling her hips as she walked. A dark girl came out toward my car. She was small-bodied, and her legs were too thin. She came right up to the window and looked in at me, her dark eyes large in the thin, white face, her expression one of surly skepticism.

"You want something?"

"Are you Lita Genelli?"

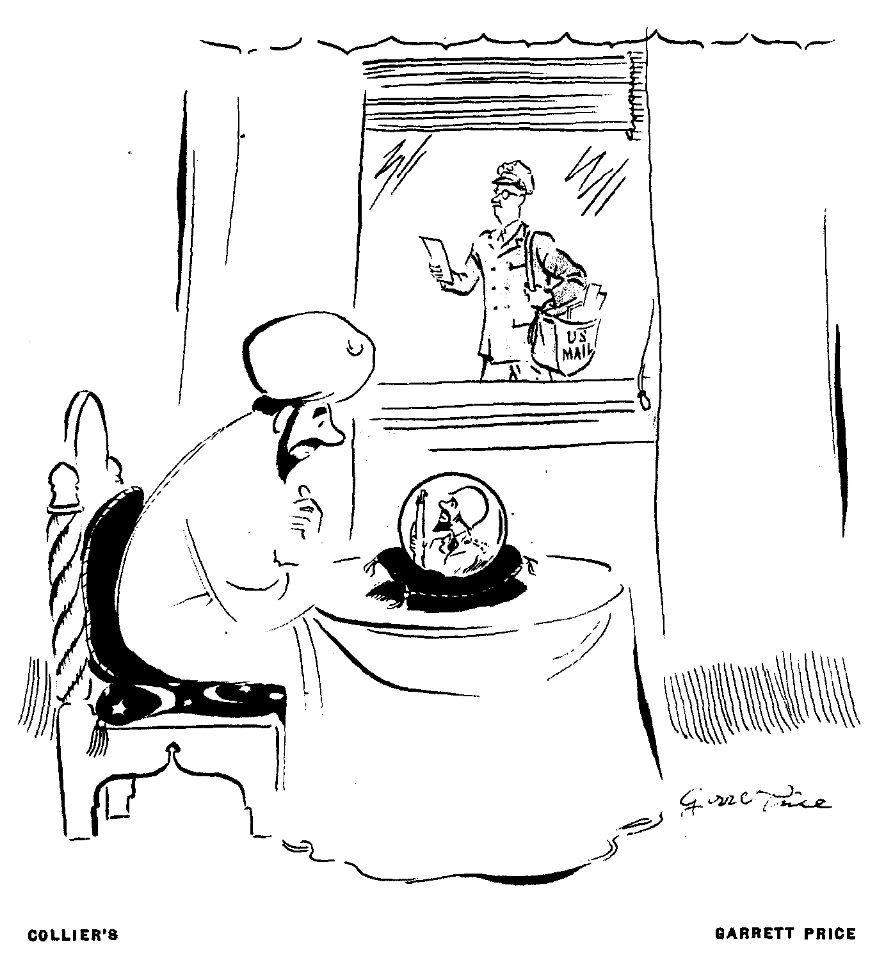
"Yeah. What do you want?"

"My name is Dean. Gevan Dean."

She bit her lip hard, and her eyes widened. "Oh, God! It was your brother who— What do you want, anyhow?"

"I saw Walter Shennary. And Sergeant Portugal said you tried to alibi Shennary. I wondered if there was anything in it. I want to make absolutely certain that they have the man who murdered my brother."

"Hold it a sec." She walked ten feet away and bent over, so she could look into the building and see the clock. She came back. "I got to talk to you, Mr. Dean. But



COLLIER'S GARRETT PRICE

PHILLIPS'
MILK OF MAGNESIA TABLETS
SWEETEN Acid Stomach
MINT FLAVORED
GENUINE PHILLIPS' MILK OF MAGNESIA 30 TABLETS 25¢

FREE!
NEW BOOK for Fishermen

All about new SpinCast® Reel — new spinning rods — new spinning tackle.

Over 100 pages of fishing tips and instructions—Skish rules—fish pictures and records—new rods, reels, lures, lines. *Write now.* FREE!

SOUTH BEND BAIT CO.
750 High Street
South Bend 23, Indiana

SOUTH BEND
A Name Famous in Fishing

MADE-TO-MEASURE CLOTHES FOR MEN

TWO-PIECE SUITS
$47.50 to $69.50
Summer weight fabrics
$39.50 to $63.50

NATIONALLY RECOGNIZED—
NATIONALLY PRICED

Schaefer TAILORING COMPANY CINCINNATI 2, OHIO EST. 1923

Write for name of our EXCLUSIVE AUTHORIZED AGENCY in your locality

AMAZING PAZO ACTS TO RELIEVE PAIN OF SIMPLE PILES INSTANTLY

Speed amazing relief from miseries of simple piles, with soothing Pazo*! Acts to relieve pain and itching *instantly*—soothes inflamed tissues—helps prevent soreness—reduce swelling. You get real comforting help. So don't suffer one moment of needless torture from simple piles. Get Pazo for fast, wonderful relief. Ask your doctor about it. Suppository form—also tubes with perforated pile pipe for easy, thorough application.

**Pazo Ointment and Suppositories ®*

ASK YOUR LUMBER DEALER he knows
CUPRINOL® STOPS ROT & TERMITES
Also reduces the swelling and shrinking of doors, floors and woodwork. Apply like paint before you paint. Cuprinol treated wood is harmless to plants, poultry and animals. Keeps good wood good.
CUPRINOL, 1 Pine Street, Simsbury, Conn.

actually costs you less...for world's finest lighter 'flint'

Ronson Redskin 'Flints' are your best buy because: ❶ They are much longer than ordinary 'flints'. ❷ Actually give you more lights per penny. ❸ Make your lighter function at its best, by giving plenty of good, strong sparks with a minimum of pressure. When you need lighter 'flints', insist on the best. Insist on extra length Ronson Redskin 'Flints'.

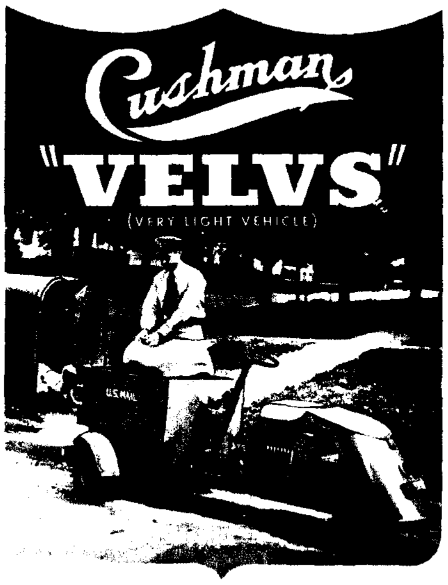
3 Extra Length RONSON 'REDSKIN 'FLINTS' with the distinctive 'REDSKIN' coating. Best for ALL lighters.

15¢

Best for ALL 'flint' lighters

EXTRA-LENGTH RONSON® REDSKIN 'FLINTS'

P.S. Use Ronsonol Lighter Fuel, too.



Light hauling jobs for any INDUSTRIAL OPERATION made easier the CUSHMAN WAY

Total operating cost less than 3/4 c per mile

More and more companies are finding new uses every day for the Cushman "VELVS"—the light delivery vehicle for plant hauling, for mail, for outside deliveries, for literally hundreds of jobs. The Cushman "VELVS" are so economical, too—low in operating cost (less than a penny per mile). Save time, save money and gain convenience with Cushman "VELVS".

- *Write today for FREE illustrated literature*
- *See your nearest CUSHMAN dealer.*

CUSHMAN MOTOR WORKS, INC.
942 No. 21st St. • LINCOLN, NEBRASKA

I can't talk here." She dug into the pocket of the short red skirt and pulled out a key and thrust it at me. "Look, you take this key and drive a hundred yards or so down the highway. It's the Birdland Motel. I got the next to the last one on the far end. Park right in front. Nobody will bother you. Go on in and wait for me. I'm supposed to get off at one, but it's a slow night and maybe I can work it quicker. Make yourself at home. There's liquor in the kitchen and ice and soda and magazines, and turn on the radio if you want. Please, will you?"

I took the key. "Okay, Lita."

"Next to the last one on the far end. Number nine. It's printed right on the key tag."

She watched me as I drove out. I parked where she had told me to. Red neon told the world that there was no vacancy. My headlights, before I turned them off, shone on liverish yellow stucco, small sagging wooden stoops, and windows with tired curtains.

I LET myself into a dark room that smelled of dust and perfume, with a very faint overtone of laundry, and stale liquor. There was a light switch beside the door, controlling a ceiling light that had one bulb and myriad dead bugs in it. I shut the door, turned on a table lamp with a red paper shade, and turned off the overhead light. Her bed had not been made back into a studio couch, and on the table near it was a handleless cup with coffee dried in the bottom of it. The room was cluttered. On a chair was a stack of newspapers, with headlines about the murder. ARLAND EXECUTIVE SLAIN. There was a picture of Ken, taken long ago, with that half-smile of his, and the quiet eyes.

I read the accounts, then stared around at the small grubby room, lighted by feeble bulbs. It was strange to be there—unreal. Perhaps a man like Portugal could take it in stride. I could think only of that quick glow of hope I had seen in Lita's eyes. She wanted her man out of jail. It would be too cruel to do what I wanted to do—leave at once. I made certain the blinds were closed and then made an amateurish search of the apartment, with the idea of perhaps finding out what sort of person she was.

I found letters, a bundle of them, in the top drawer of a maple-finish dressing table. I hesitated for a long minute, then took them over to the lamp and read some of them. Most of them were penciled on cheap stationery, addressed to her at the Birdland or The Pig And It. They were of the same pattern. *Lita, honey, I delivered the load at Norfolk and got me a load for Kansas City. Looks like maybe at KC I can get one for Philly and that will bring me by again, and you know I will be stopping, so you be on the lookout for me. We had us a time and I sure am looking forward to seeing you soon again.* They were signed Joe and Al and Shorty and Red and Whitey, and they bore greasy thumbprints and were mailed from all over the East. And they were all over two months old. I put them back in the drawer. Except for the facts that she owned a good many cheap bright clothes and used a lot of cosmetics, I learned nothing else about her.

Lita came in at twenty after twelve. She wore her car-hop uniform. "I'm sorry I couldn't get off quicker. You know how it is sometimes. Let me make you a drink. I got to have one. God, my feet hurt!"

While she was in the kitchen, rattling an ice tray, she said, raising her voice, "I don't know why you came by, but I'm glad you did. Wally wouldn't kill anybody, and I know he didn't shoot your brother. He was right here all the time. If I thought he had it in him to kill anybody, I wouldn't have nothing to do with him, believe me. Those cops think it's a gag or something. They make me so damn' mad."

"Do you blame them? Look at it from their side."

She came out with the drinks, gave me mine, and sat beside me. She had made stiff ones, so stiff they looked like iced coffee.

She frowned. "I know. With him having a record and all. It makes it tough."

"And with the gun in his possession."

"In his room," she corrected. "In his room, Mr. Dean. Where anybody could have put it. I'll tell you. I had the evening off. We drove out here and got here after ten. We had some laughs, and some drinks, and I was asleep when he took off, but I know it was after two, probably. Nobody saw him here but me."

"He was identified as robbing a supermarket a while back."

"I'll be honest with you, Mr. Dean. I wouldn't tell the cops this. I know he knocked over that supermarket. He got six hundred dollars."

She didn't look much over eighteen. "How did you get mixed up with a guy like that?"

She stared at me. "Hell, I know what he is. He told me he did time. And I guess I was kidding myself, thinking he'd ever go straight. I haven't been an angel, Mr. Dean. I've done a lot of playing around. And Wally was just another date—until we fell for each other. I know he's no good, but I can't stop loving him just on account of that, can I? He's got a terrible temper and he knocked me around a couple times, and I got sore, but we made up. All he has to do is look at me, and I go just like putty. You can't help a thing like that, can you? He told me he ever catches me with anybody, he'd kill the both of us, and I believe him."

"What sort of a man is he?"

She smiled fondly. "Oh, he keeps telling himself he's a real hard guy, but underneath he's soft. Likes kids and dogs and stuff like that. He just never had a break, and neither did I. We both started in the wrong kind of neighborhoods. He wouldn't kill anybody, except he had to do it to keep from getting killed himself."

"Do you think he's pretty bright?"

She raised one jet eyebrow. "Too bright to hold on to a gun after he'd shot somebody with it, if that's what you mean."

"I don't see, Lita, how you can convince the police that he was here. There's too much against him."

She bit her lip. "I can show you something. And you see what you think. Look, he knew he had violated his parole. And he knew that if they caught up with him and shook him down and found a gun, he'd have no chance of talking his way out of going back into the pen. Come over here, Mr. Dean."

I FOLLOWED her over to the bureau. She took the second drawer out entirely. "Now light a match, Mr. Dean, and look back in there."

I looked back into the empty space the drawer had left. An automatic was back there, stuck into a band of rubber cut from an inner tube. The band was thumbtacked to the wood.

She replaced the drawer. "See? That's his gun. He thought it would be safer to keep it here. Now answer me this. If he goes to all that trouble, does it make sense for him to keep another gun in his room?"

"Not very much sense."

"And he lone-wolfed it, always," she said. "Anything he pulled, he was always alone. So how could there be anybody to tip off the cops about him shooting your brother?"

I walked over slowly and sat down. She stood in front of me. "Mr. Dean, you've got to help us. Wally didn't kill your brother. Somebody did. And there must have been a reason. If the cops are satisfied, it's no reason you got to be. You've got to find out who killed your brother and why, and then you can turn it over to the cops, and Wally won't get life for something he didn't do. I couldn't stand it if he got life. He's halfway promised to marry me. I can wait for him, even if it's five years, and he may get that much for the supermarket job. I think that will jolt him enough so he'll go straight, and that's what I'm planning on."

"You've been reading comic books, Lita;

You'll Remember Oregon!

Bear grass and rhododendron blossoms add color to Oregon's Mount Hood recreational area.

Bring your whole Family to evergreen Oregon for thrill-packed vacation days. Have fun in famous Pacific Northwest scenic settings... the colorful Columbia River Gorge . . . mile-high Crater Lake National Park . . . 400 miles of Pacific Ocean parkway. Also for you to enjoy are 13 National Forests, 181 State Parks, high plateau Old West rangelands, historic trails, snow-crowned mountains, modern travel facilities . . . and friendly Oregon people. Set the dates *soon* for happy *Oregon* days.

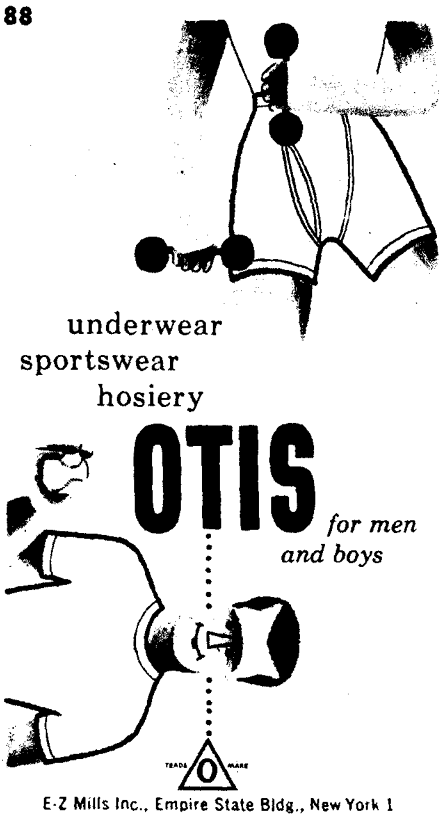
SEE ALL OF Oregon BY TRAVELING SCENIC HIGHWAYS

Clip and Mail Coupon for 1952 Oregon Booklet. ***It's free!***

Travel Information, Room 122
Oregon State Highway Department
Salem, Oregon

Please send free booklet, "Oregon, Cool, Green Vacationland," to:

Name____________________________
Address__________________________
City____________________Zone______
State___________________________


underwear
sportswear
hosiery
OTIS for men and boys
E-Z Mills Inc., Empire State Bldg., New York 1

QUICK RELIEF
FROM
Muscular Pain

12 TABLETS
BAYER
ASPIRIN
Genuine
TO OPEN: PRESS RED SPOT
FEEL BETTER FAST!

YOU'D
NEVER
KNOW
I HAD
PSORIASIS
(S. D.)*
As hundreds of thousands of users have learned, Siroil tends to remove psoriasis crusts and scales on outer layer of skin. Light applications help control recurring lesions. Siroil doesn't stain clothing or bed linens. Offered on two-weeks-satisfaction-or-money-refunded basis. Write for free booklet.
My thanks to-
*S. D. means Skin Disorder.
SIROIL AT ALL DRUG STORES
Siroil Laboratories Inc., Dept. CR-86, Santa Monica, Calif.
Siroil of Canada, Box 488, Windsor, Ont

Wake Up
To More Comfort
Without Nagging Backache
Nagging backache, loss of pep and energy, headaches and dizziness may be due to slowdown of kidney function. Doctors say good kidney function is very important to good health. When some everyday condition, such as stress and strain, causes this important function to slow down, many folks suffer nagging backache—feel miserable.
Don't neglect your kidneys if these conditions bother you. Try Doan's Pills—a mild diuretic. Used successfully by millions for over 50 years. It's amazing how many times Doan's give happy relief from these discomforts—help the 15 miles of kidney tubes and filters flush out waste. Get Doan's Pills today!

FLORIDA...
Nice homesites $245 at $10 monthly. New development adjoining Ocala National Forest. Best fishing, hunting. Folder free. **Webb Verner, DeLand, Florida.**

private citizens don't go around straightening out the police. I'm not satisfied, entirely, that it was Shennary. But Sergeant Portugal seems satisfied, and—"

"Why shouldn't he? It's a murder written off the books. Cops are lazy, just like you and me, Mr. Dean. They like the easy way, too."

"Maybe I can talk to Portugal again."

"That won't do any good. He won't listen to you. To him, it's all wrapped up. Wally is all wrapped up. He likes that, Portugal does. It makes his record look good. It's another crook out of circulation, is all he thinks about." She sat down and covered her face with her hands. The pert car-hop costume made her grief seem oddly poignant. "I—I don't know. I'm all mixed up, Mr. Dean. I don't know what I'm doing or saying any more. I just love the guy. I thought maybe you would help. Nobody else is going to."

"I didn't say I wouldn't help."

She looked at me warily. "You're not kidding me?"

"No, Lita. Look at me. Look straight at me and tell me. Was Walter Shennary here Friday night?"

She crossed herself. "I swear he was. Before Jesus and Mary, I swear he was here with me at the time your brother was killed."

I BELIEVED her. Portugal would call me a fool. But I believed her and I believed Shennary innocent. I drove slowly back to the hotel garage, taking with me the memory of her bottomless dark eyes, the pathetic jauntiness of her work uniform.

And I was left with a new nightmare, one that I hadn't wanted to admit to myself until she forced me to. If Shennary hadn't killed Kendall, then someone else had, and they had planned it very neatly indeed. It showed premeditation, cunning, and resolve.

Why had my brother been murdered? Who would Kendall want to hurt?

The whole mess gave me a sick feeling, gave me a sudden longing for the gray morning Gulf, the sudden hard dip of the socketed trolling rod, clean sand and terns, as white as bone, against blue sky. But I had begun to walk along this narrow path that was too narrow to turn around on.

The emotional climate was pre-storm, somehow—stillness and a brassy sky, and winds out of nowhere that flickered and disappeared into stillness. . . .

Thursday morning, at nine thirty, I drove to the plant.

I drove into that section of the parking lot reserved for the executive personnel, and nosed into the space labeled K. Dean. By habit, I headed toward the entrance I had used in the old days.

The guard in gray uniform said, "Pass?"

"I haven't got a pass. I'm Gevan Dean, and Mr. Mottling is—"

"Sorry, no pass and you use the office entrance out on the street, Mr. Dean. Those are my orders."

I went around meekly and in the other way. Salesmen were waiting stolidly for the receptionist to give them the nod. Over in another enclosure, hopefuls were waiting for interviews in the personnel office.

The receptionist gave me a double-take and a brilliant smile. "Go right on upstairs, Mr. Dean. Oh, I'm sorry. You'll have to sign for a temporary office pass."

I signed and took the badge labeled *Visitor—Offices Only* and pinned it on my lapel.

"Mr. Mottling's secretary told me to send you right up as soon as you arrived."

"Thanks. Don't tell her I'm in the building yet. I'm going to stop off and say hello to Mr. Granby first."

I knew that she would circulate that little tidbit rapidly, taking it as partial proof that in the Granby-Mottling contest I was a Granby-ite. I hoped it would spread to Mottling's ears and give him a few twitches.

Joan Perrit sat behind the big secretarial desk in Granby's outer office. She glanced up quickly as I came in, and then turned almost tomato red. The coloring that goes with red hair made her a very spectacular blusher.

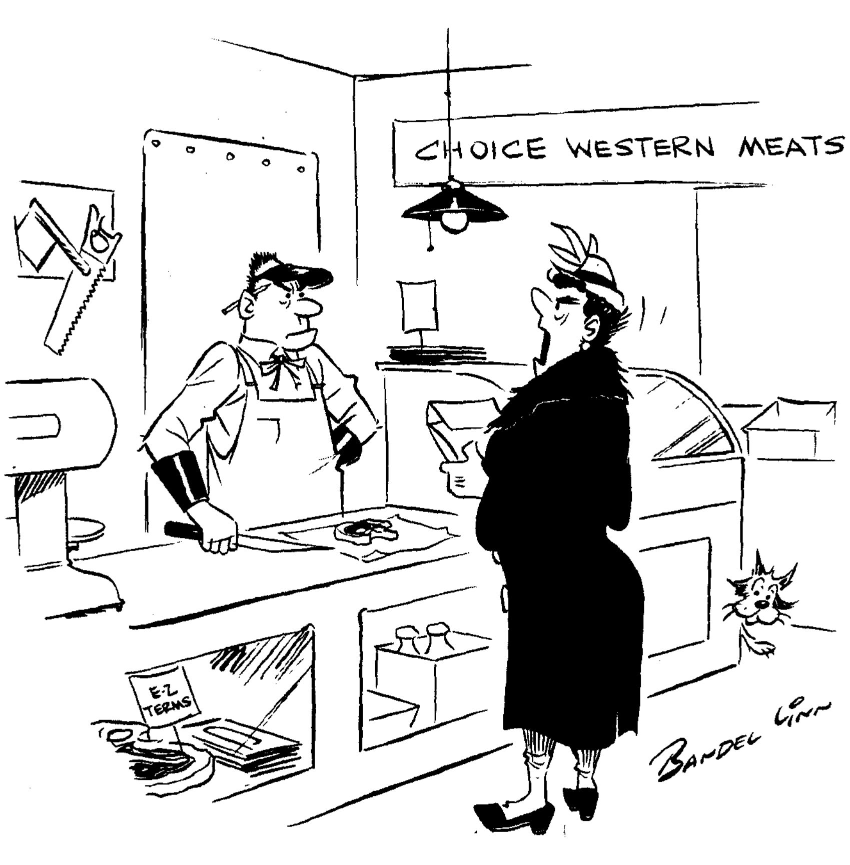
"Good morning, Perry."

"Mr. Dean, please forget anything I might have said last night. I was really too tired to be responsible."

"It's forgotten. Can I see Walter?"

"Colonel Dolson is in there with some vouchers right now, Mr. Dean, but I think that Mr. Granby would like you to go right—"

"I'll wait. You go right ahead."



COLLIER'S

"I said 'How much is the chop'
—*Not*, 'How much is the *shop*?'"

BANDEL LINN

No place is too far
WHEN YOU OWN A WHIZZER
With your own Whizzer, you'll ride anywhere you want to go—cross-country or in town! Dependable, enjoyable transportation! A new world of fun for you!
5 to 35 M.P.H.
Up to 100 miles to the gallon.
3 h. p. motor.
WHIZZER PACEMAKER MB710, illustrated, is a beautiful, complete motorbike. 3 h.p., 4-cycle, 138 c.c. motor. Headlight, tail light, built-in generator. 5" expander-type rear brake. E-Z-Glide clutch. Dual spring telescopic front fork. Big 3-point-mounted saddle. Heavy-duty frame and wheels. Chrome carrier available at additional cost. See, ride, own a Whizzer Pacemaker! At your dealer's, or write for free booklet.
WHIZZER MOTOR CO., 342 S. Sanford, Pontiac, Mich.

TRAVEL MADE COMFORTABLE
ON
SEA, LAND and AIR with
MOTHERSILL'S
TRAVEL
REMEDY
IN USE HALF A CENTURY THE WORLD OVER
For CHILDREN and ADULTS • At Druggists

IRISH FAMILY MAP
Ideal gift for Irish friends. 5 beautiful colors. Big. Authentic pre-17th century location, ancestry, social status approximately 1000 family names. $5.50 post paid. 1435 E. 12 St., Cleveland 14, Ohio.

WANT EXTRA INCOME
for new clothes, travel, everyday expenses, "extras"?
Collier's offers you an opportunity to make a substantial spare-time income for new clothes, entertainment, "extras," or just to meet the rising cost of living.
Use the telephone, mail and personal calls to take care of new and renewal subscriptions for COLLIER'S, THE AMERICAN MAGAZINE, WOMAN'S HOME COMPANION and ALL publications.
For money-making supplies, *mail a post card or the coupon now.*
----EXTRA INCOME COUPON----
Independent Agency Division, Desk C-14
THE CROWELL-COLLIER PUBLISHING CO.
640 Fifth Avenue, New York 19, N. Y.
Without cost or obligation, please send me details of your EXTRA INCOME PLAN.
MR.
MRS. ....
MISS (Please Print)
STREET.......................................
CITY......................Zone No.........
STATE.......................................

I sat and watched her. Her fingers flew over the typewriter keys. Each time she reached the end of a line and banged the carriage back, she glanced furtively toward me and colored a little bit.

"Damn!" she said softly, and snatched up her eraser and scrubbed at a line.

"I'm seeing Walter first. Think that'll be grist for the rumor factory?"

"It certainly will. One of the office boys is making book on the Monday meeting."

"How does Walter stand?"

"Seven to one, the last I heard. But this will bring it down a little."

The door opened, and a man in uniform came out briskly. He was a wide man in his fifties. Curly gray hair started low on his forehead. His skin was the firm pink associated with babies. His uniform was *beautifully tailored, and the shoulder eagles* were like little mirrors. He exuded an aroma of barbershops, facials, manicurists, careful exercise, polished leather, excellent Scotch and good living. His eyes were clear, and he set his heels down firmly. Here, he seemed to say, is a civilized warrior who has learned how to live. Just watch me, and be envious. For I am bright and quick and healthy and contented.

HE WAS humming to himself. He winked at Miss Perrit, gave me a quick, bright glance, walked on three sharp paces, then wheeled, as though he were on a parade ground.

"Are you Gevan Dean? You must be. I can see the resemblance."

I stood up, telling him he was right. He swooped at my hand, gave it a hard West Point yank, and released it, showing me his superb dentistry.

"Damn' glad to meet you, Dean. By God, Stanley was supposed to let me know the minute you came in."

"I haven't seen Mr. Mottling yet, Colonel."

He glanced toward Granby's closed door, and pursed his lips. Then he showed me more dentistry. "Well, I'll see you in Stanley's office as soon as you finish up here. Don't be long now." It sounded like an order, so he tried to smile it into a joke, then remembered his manners. He became unctuous, a sort of assistant mortician. "Damn' shame about your brother, Mr. Dean. He was one sweet guy, for my money." And somehow, the colonel managed to edge a tiny bit of condescension into the way he said "sweet." He went off, his neat leather heels going clop-clop-clop on the composition floor, marching to the sound of unheard drums.

I turned toward Perry and saw that we were both making the same sort of face. We had to laugh. I saluted the doorway and said, "Yessir, sir."

"I guess he's harmless," she said. "He's a reserve officer on active duty and I heard one of the girls in his office say that he used to run a hardware store in Grand Rapids. You can go in now, Mr. Dean."

Granby looked up at me and grunted with surprise. His smile spread the deep, bloodhound folds of his cheeks, like someone parting draperies with both hands.

"Sit down. It's time you came home, boy. You've been missed."

I sat down. There was a stinging feeling in my eyes. Walter had gone to work for Grandfather Gevan when he was seventeen. He was a link with a good past.

"I won't try to say anything about Ken, boy. You know how I feel."

"Thank you, Walter. How goes the war?"

"A great battle, I guess. But I'm an unwilling participant. Karch is sending a straw man into battle." He looked old and weary, but not the least dulled by time.

"Don't you want the job?"

His eyes sharpened and his laugh was a deep rumble. "Just to keep Mottling out."

"No like?"

"You young squirts never realize that on the inside a man never feels old. Mottling calls me 'sir' and looks like he wanted to take my arm and cluck at me. Someday he's going to ask for the inside story on how Lincoln got shot and, damn, maybe I'll tell him."

"Is he a good production man, Walter? That's what I want to know."

"Except for certain tendencies I'd call fascistic, very good. Of course, by the time he drives away everybody with any brains in the production sections, it may be a different story. I'd define him as a hell of a good man to come in on a trouble-shooting basis and get out again, and not so good for the long haul."

"What would you do if you were the big boss, Walter?"

"Try to get back some of the boys he's driven away."

"How was Ken doing?"

"Poorly. Too soft for the job, Gevan. Not enough of your father's iron in him. Not nasty, like you used to be. Never came *in to bang on my desk and yell, like you* used to when you wanted to get your hot little hands into the reserves."

"You're always too tight in the money department, Walter."

"I'm the old watchdog. We're in pretty good shape right now. We haven't had to dig as deep as I thought we would. On plant expansion, for the fixed-price stuff, we get a percentage of the total contract price as soon as production facilities are set up. A sort of percentage-of-completion deal. You could almost call it an advance payment. We've used short-term construction loans rather than dig into the barrel."

"Anything special, outside of this battle of the officers?"

"Nothing important. In the C Building contract, we're on a cost-plus-fixed-fee basis, with a negotiation provision. Dolson is contracting officer and also a sort of free-lance purchasing agent for a lot of the stuff on the contract, as well as for the expansion of the Army facilities here. And that boy can run a voucher through before you can say 'General Accounting Office.' Pity the poor taxpayer, boy."

"I thought the government had pretty much given up those cost-plus contracts after their experience the last time."

"They have, on standard items. Tanks and planes and guns and so on. But there's no experience factor on the item we're making. So it has to be cost-plus until we've been running a while. Then it will undoubtedly go back to fixed price with a renegotiation clause. But how about taking pity on an old man who saw Lincoln shot, boy? I have enough to do right here. Say the word, and Karch will swing his weight behind you. Then you can vote yourself right in. Be good to have somebody around to beat on my desk."

"Have you been conferring with Miss Perrit?"

He raised his shaggy white eyebrows. "She think that way too? Shows how smart she is. The best. Just say yes, boy, and I'll pick up this phone and have Karch on the line before you can think it over."

GRANBY put his big white paw on the telephone and looked at me, like an expectant bloodhound.

"I'm too rusty, Walter."

"Boy, when I was a punk kid, your grandfather hired me. I worked with your dad and later on I was glad to take orders from him, because he had the Dean touch. You've got it too, and right now this firm needs a Dean with something on the ball like it never needed one before."

"No, Walter."

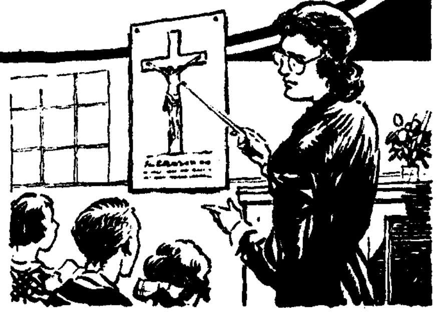
He gave a heavy-shouldered shrug. "In the words of my granddaughter, you're chickening out, boy. Well, go ahead, and choose between us. I've got a hunch you'll be wrong either way." He picked up a financial statement and read it, ignoring me.

I walked out, angry at him, and went to my old office. Mottling's office. His girl was a stranger, a lean blonde with a beaver-trap mouth and opaque blue eyes. She gave me smile number seventeen, and sent me on in.

Mottling had his heels on the desk, and he was sucking on his pipe. Colonel Dolson about-faced from the window.

Mottling said lazily, "Curt has something

Should Children Learn About God–In School?



Some people will emphatically say "no." They will contend that the purpose of education is to train the mind . . . to make good citizens . . . to equip children to use their talents for useful living.

And some of them will argue that it is un-American, un-democratic, and unnecessary for Catholics to maintain their own schools. The public schools, they say, are all we need.

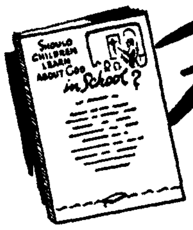
But are they right? It's a good question for parents—both Catholic and non-Catholic—to think about.

Religion, as Catholics see it, is not a subject to be set apart from other fields of learning. On the contrary, it is the very core and center and hub of all human knowledge. It is the governing factor in our understanding and appreciation of all other learning. It relates all of the knowledge we acquire to the divine purposes for which we were created.

Children cannot, of course, get this kind of education in public schools. There is a law against it, and a ruling of the Supreme Court has been interpreted by many states as prohibiting public schools from even excusing children for outside classes in religious instruction.

It is for these reasons that your Catholic friends and neighbors willingly pay their share of the cost of maintaining the public schools . . . and yet build Catholic schools for their own children. It is not due to clannishness on the part of Catholics, to any dissatisfaction with the academic efficiency of the public schools, nor to any doubt about the high standards of morality among the great majority of public school educators.

It takes years of school life for a child to learn the principles of democracy and social responsibility. Can we expect children to gain a knowledge of religion in a once-a-week Sunday school? Or in a week-day school where God's name is seldom mentioned and a prayer is never heard?


Should Children Learn About God In School?

Free

A highly interesting pamphlet explaining in detail what goes on in a Catholic school, how Catholic schools benefit the nation, why Catholics have their own schools . . . why parents, Catholic and non-Catholic, must concern themselves seriously about the education of their children for success in life, and for the salvation of their immortal souls. For your free copy, write today. Ask for Pamphlet No. C-31.

SUPREME COUNCIL

KNIGHTS OF COLUMBUS

RELIGIOUS INFORMATION BUREAU

4422 LINDELL BLVD. ST. LOUIS 8, MISSOURI

FEET HURT?

Foot, Leg Pains Often Due To Weak Arch

Rheumatic-like foot and leg pains, callouses, cramps, tenderness and burning feeling on bottom of feet are symptoms of Weak or Fallen Arch. Dr. Scholl's Arch Supports and exercise quickly relieve them. Expertly fitted at Shoe, Dept. Stores.

Dr Scholl's ARCH SUPPORTS

NON-SLIP
CAT'S PAW
RUBBER HEELS·SOLES

"and there I stood...
comfortable
and unafraid!"
Jockey Midway®
All underwear gives you coverage but
only Jockey® BRAND
gives you full comfort!
Shorts
Longs
Over-Knee®
Bellin®
Made only by Coopers®
Kenosha / Wisconsin

You're sure to have the most comfort possible if you're wearing Jockey brand Midway. Because Jockey is the tailored-to-fit underwear—made with 4 exclusive features to insure extra comfort.

Like the way the separately contoured pieces are carefully crafted into one pair of Jockey Midway! And the exclusive groin seams that help give you mild support, keep Jockey from creeping up on you! But why not try Jockey? Find out for yourself how the few more pennies you pay for Jockey bring you lots more comfort!

The actual pieces that are tailored to give you Jockey comfort.

All the world wears Jockey—
Licensees and registered users: Canada: J. R. Moodie; Australia: Speedo Knitting Mills; British Isles: Lyle & Scott; New Zealand: Lane. Walker, Rudkin; Switzerland: Vollmoeller; France: Verdier; Colombia: Textiles, Ego; Italy: Sacit; Austria: Poeschl; Denmark: Taco; So. Africa: Ninian & Lester; Germany: Volma.

to get off his chest, Gevan. Go ahead, Colonel."

This time, I received no dental smile. The colonel locked his hands behind him and moved a polished brown shoe over about eight inches—parade rest, apparently. He thrust his chin at me. "I think it is time I made my position clear, Mr. Dean. I represent the Pentagon here. I think you can safely say that, in this plant, I *am* the Pentagon. Your brother wasn't capable of handling the job this company faces. Backed up by, Stanley here, he could do it. Now he's dead. That's very unfortunate. My sincere regrets.

"According to my orders, I am merely the Army Inspector of Ordnance and the Contracting Officer here. However, I have an unwritten responsibility to do everything in my power to see that this company is efficiently managed. I have every confidence in Mr. Mottling. However, I do not intend to keep my mouth shut and see a lot of reactionary old fuds toss Mottling out and put in a has-been like Granby. It is your duty to your country, Dean, to put your vote in back of Mottling at the Monday meeting. And if you refuse to do that, I would like very much to hear your reasons."

"The colonel," said Mottling, with a sly smile, "is not a very politic man."

I hooked one leg over the corner of the small conference table. I counted slowly to ten, silently. Dolson rocked back and forth, toes to heels, and watched me with his pale warrior's eyes.

"I'll be just as frank as you've been, Colonel."

"Good."

"You place your weight behind Mottling. In other words, you have taken a direct interest in the internal affairs of this company."

***Collier's Editorials** normally appear on this page. This week, however, our editorial—dealing with the need for immediate federal action on a projected station in space—is an integral part of the special symposium on space travel that is a feature of this issue. It will be found on pages 22 and 23*

"Precisely, and for the reason I mentioned."

"All right, then. The flaw in the reasoning, as I see it, is that you have given me no basis by which to assess the quality of your judgment, Colonel. On the basis of what past experience do you consider Mr. Mottling to be the proper man for this job?"

"I consider myself an excellent judge of human nature."

"I've never heard anybody admit they were a poor judge, Colonel. That little egotism seems to be a part of all of us. What experience do you have in industry that makes you a judge of executive ability?"

DOLSON sputtered, "Why, I've had ample opportunity here to observe both Mr. Mottling and Mr. Granby, as well as your brother, and I—"

"Please, Colonel Dolson. I see you're not wearing a West Point ring. I assume you have *some* civilian experience. What is it? How has it helped you judge these men?"

"I owned and managed my own business for a good many years," he said.

"Oh. Was it a manufacturing concern?" I asked.

He bit his lip. "In—a rather small way, you might say."

"How many employees?"

I'll give him this much. He stuck out his chest and managed to say, "Four."

"Colonel, forgive me if I remind you that during the last war, Dean Products employed three thousand people. The problems are different. I can see that you are fond of Mr. Mottling. He is a very likable man. Mr. Granby is not particularly likable until you have known him at least twenty years. You say that you speak for the Pentagon. I imagine you know General McGay. He has employed tens of thousands of people in industrial operations, and he has lectured on industrial management at the Harvard Business School. If you want to force an issue on this, I would like to go to Washington with you and listen to you tell General Clarence McGay just why you have taken sides in a question of internal management of this company."

"What do you mean, sir?" Dolson asked sharply.

"I mean that I expect complete impartiality from you, Colonel. I am speaking as a stockholder. You are Army. As a stockholder, I am interested in profit, and I am interested in my right to elect, or help elect, the directors and officers of this company. I resent being pushed, and I resent you pushing on other stockholders. There's the telephone. Tell me what you plan to do. We can easily make an appointment with General McGay."

"I have merely been following out the intent of my orders to the very best of my ability, Dean."

"I don't question your ability. Only your experience. So make up your mind."

IT TOOK him a long twenty seconds. He turned to Mottling and stuck out his hand. "Stanley, I did as much as I could. Good luck to you. And good day to you, Mr. Dean." He strode out, looking neither to right nor left, and closed the door quietly behind him.

Mottling gave me a quiet smile. "When you were a kid, Gevan, did you tear the wings off flies?"

"All the time."

"You're right, of course. I didn't ask for his support. He was anxious to back me. So I let him. Wouldn't you?"

"In your shoes, yes."

"Who is this McGay, Gevan? I don't think I've ever heard of him."

"I made him up."

"Heavens to Betsy! Don't ever tell Dolson that."

"I won't."

"And don't ever let me play poker with you. By the way, are you for me or against me?"

I liked the way he asked. "I don't know yet," I said.

"Once you make up your mind, I'd consider it a personal favor if you'd let me know privately. I'll keep it to myself, either way. You see, if you decide to come out agin me, I have a few irons to get into other fires as soon as possible."

"Sure."

"I like the way you handled Dolson. Like the small boy he is. He needed a spanking. If I should happen to win out, and if you want to stay around, I could use you."

"I don't plan to stay around."

"I think Niki wishes you would."

I stared at him. He was a little bit too amiable, too pleasant. Somehow, there was a false ring to him; he was a gold coin with just a touch of lead.

"Are you married, Mottling?"

His eyes grew surprisingly cold. "I've never found time for it, frankly."

"Why don't you get married? Everybody ought to get married."

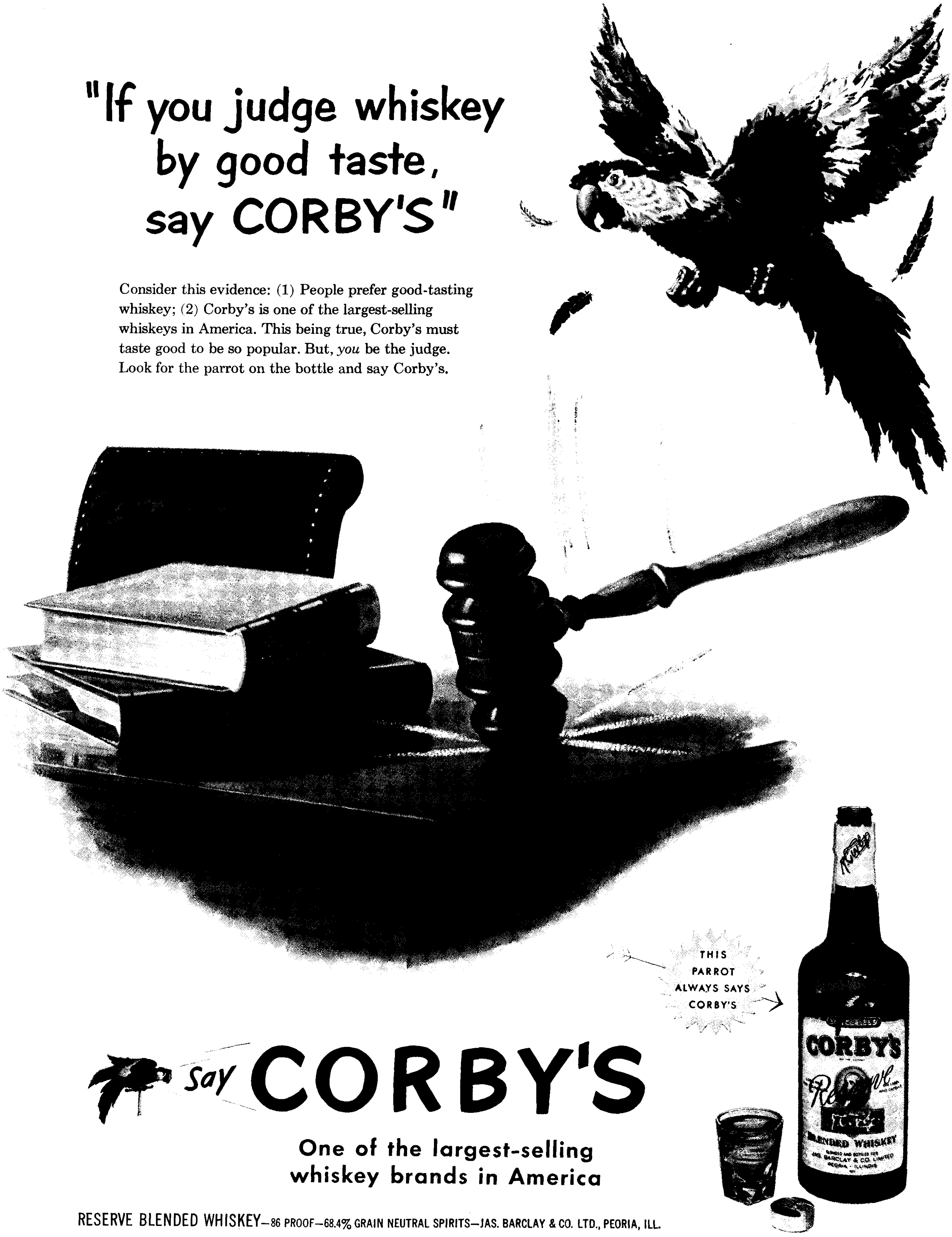
"What are you driving at?"

"You leave my personal life alone, and I'll leave yours alone."

"Don't be so touchy. I consider Niki a good friend, Dean."

"That's the trouble around here. You're all good friends. It gets a little sickening." I walked out, and immediately felt ashamed of myself. He'd hit a sore point, and I'd reacted like a child.

(To be continued next week)



"If you judge whiskey by good taste, say CORBY'S"

Consider this evidence: (1) People prefer good-tasting whiskey; (2) Corby's is one of the largest-selling whiskeys in America. This being true, Corby's must taste good to be so popular. But, *you* be the judge. Look for the parrot on the bottle and say Corby's.

THIS PARROT ALWAYS SAYS CORBY'S
CORBY'S
Reserve
BLENDED WHISKEY
BLENDED AND BOTTLED FOR JAS. BARCLAY & CO. LIMITED PEORIA · ILLINOIS

Say CORBY'S

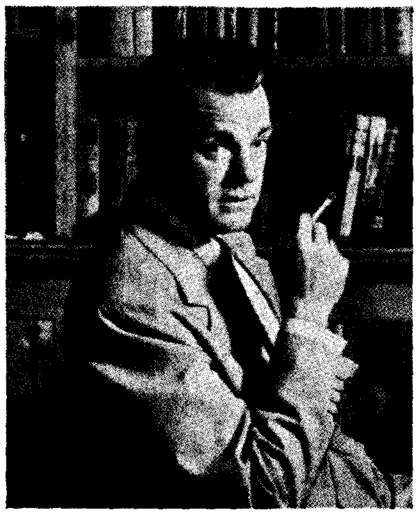
One of the largest-selling whiskey brands in America

RESERVE BLENDED WHISKEY—86 PROOF—68.4% GRAIN NEUTRAL SPIRITS—JAS. BARCLAY & CO. LTD., PEORIA, ILL.

UNIVERSITY

Why did *you* change to Camels, DENNIS O'KEEFE?

Dennis O'Keefe
POPULAR MOVIE STAR



"My cigarette must be kind to my throat…

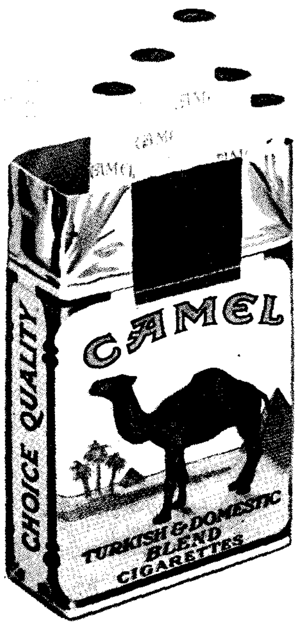
and Camels have the mildness I want!

They agree with my throat —pack after pack…

I've never enjoyed a cigarette so much as Camels!"

LET YOUR TASTE AND THROAT DECIDE:

Smoke only Camels for 30 days—see why millions more choose CAMELS


CAMEL
CHOICE QUALITY
TURKISH & DOMESTIC BLEND CIGARETTES

MAKE your own 30-day Camel test—the thorough test of cigarette mildness. Smoke only Camels for thirty days and compare them with any other brand you've smoked before.

You'll enjoy Camel's rich, full flavor—a flavor you won't find in any other cigarette.

You'll see how mild Camels are, how well they agree with your throat—pack after pack, week after week. Then you'll know why Camel is by far America's most popular cigarette!

Test Camels in your "T-Zone" (T for Throat— T for Taste)

R. J. Reynolds Tobacco Co., Winston-Salem, N. C.